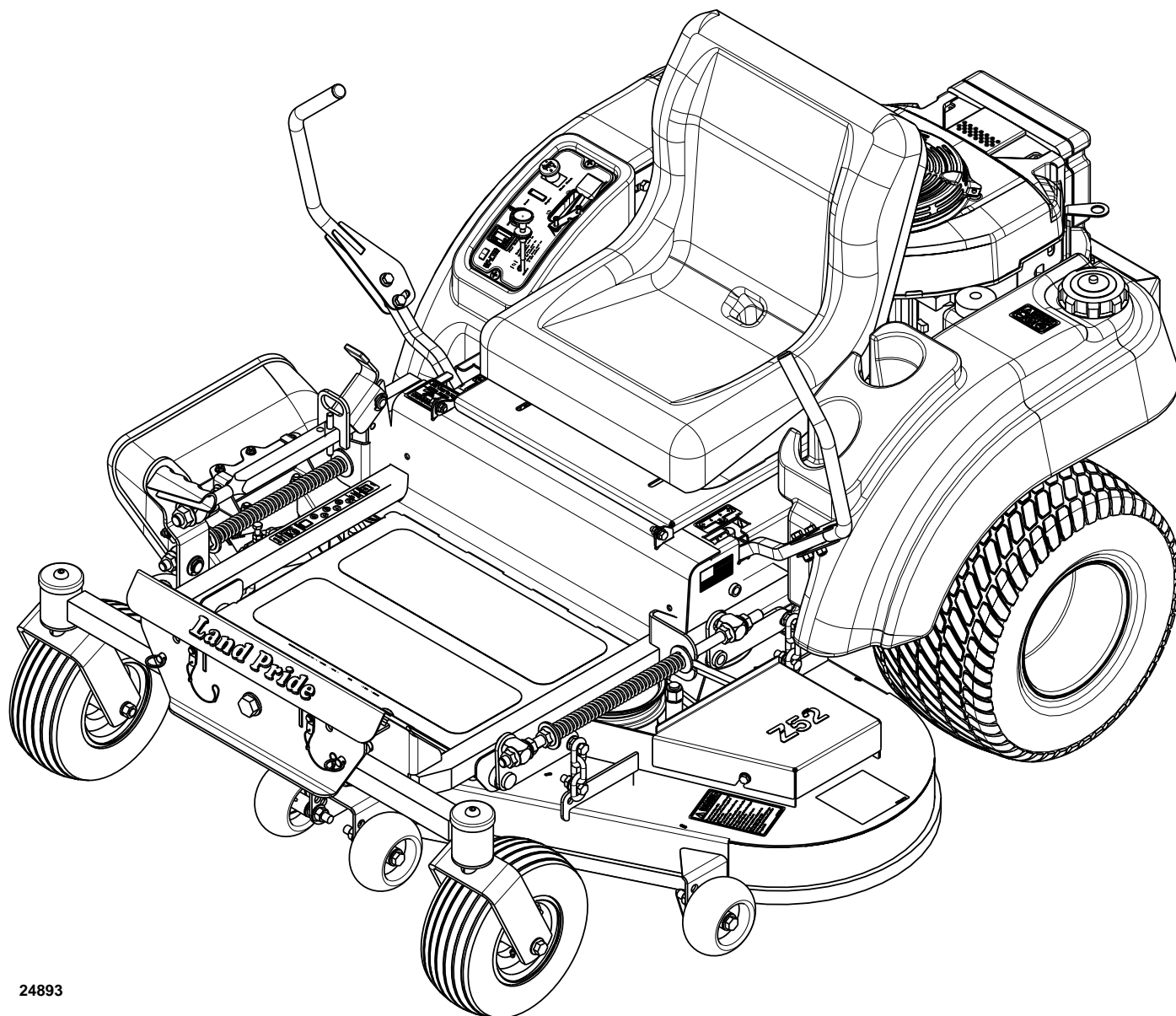


Riding Mowers **Accu-Z Razor®**

Z44 & Z52 (S/N 526171 & Above) Zero Turning Radius Mowers



24893

357-187M **Operator's Manual**



Read the Operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!



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Cover photo may show optional equipment not supplied with standard unit.

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Important Safety Information

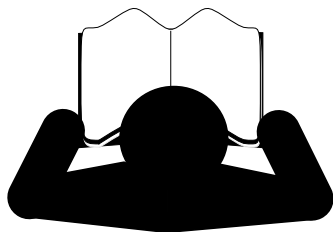
These are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ Operator should be familiar with all functions of the unit.
- ▲ Operate implement from the driver's seat only.
- ▲ Do not leave equipment unattended with engine running.
- ▲ Dismounting from a moving mower could cause serious injury or death.
- ▲ Do not stand between the mower and implement during hitching.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ Wear snug fitting clothing to avoid entanglement with moving parts.
- ▲ Watch out for wires, trees, etc., when raising implement. Make sure all persons are clear of working area.
- ▲ Turning mower too tight may cause implement to ride up on wheels. This could result in injury or equipment damage.



Look For The Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

WARNING

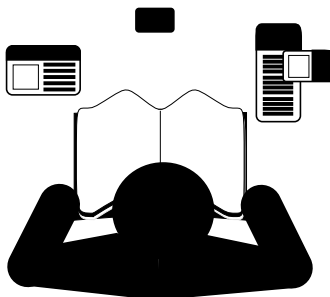
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

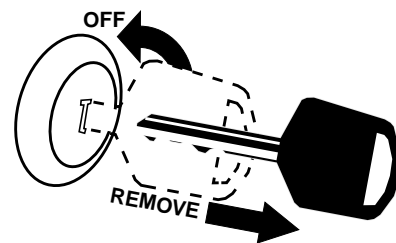
For Your Protection

- ▲ Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



Shutdown and Storage

- ▲ Lower machine to ground, put mower in park, turn off engine, and remove the key.
- ▲ Detach and store implements in a area where children normally do not play. Secure implement by using blocks and supports.



Important Safety Information

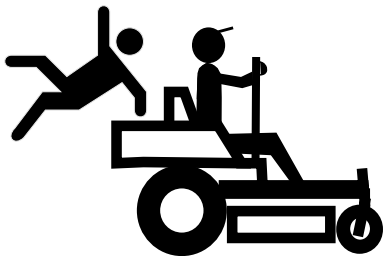
These are common practices that may or may not be applicable to the products described in this manual.

Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- ▲ Work in a clean dry area.
- ▲ Put mower in park, turn off engine, and remove key before performing maintenance.
- ▲ Allow mower to cool completely before performing maintenance.
- ▲ Do not grease or oil mower while in operation.
- ▲ Inspect all parts. Make sure parts are in good condition and installed properly.
- ▲ Remove buildup of grease, oil or debris.
- ▲ Remove all tools and unused parts from mower before operation.

**Keep Riders Off Machinery**

- ▲ Riders obstruct the operator's view, they could be struck by foreign objects or thrown from the machine.
- ▲ Never allow children under 16 years of age to operate equipment.

**Avoid High Pressure Fluids Hazard**

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ▲ Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

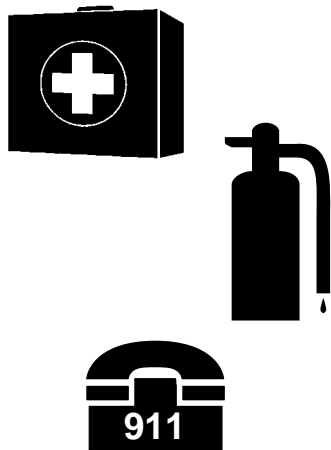


Important Safety Information

These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.

**Wear Protective Equipment**

- ▲ Protective clothing and equipment should be worn.
- ▲ Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating equipment safely requires the full attention of the operator. Avoid wearing radio headphones while operating machinery.

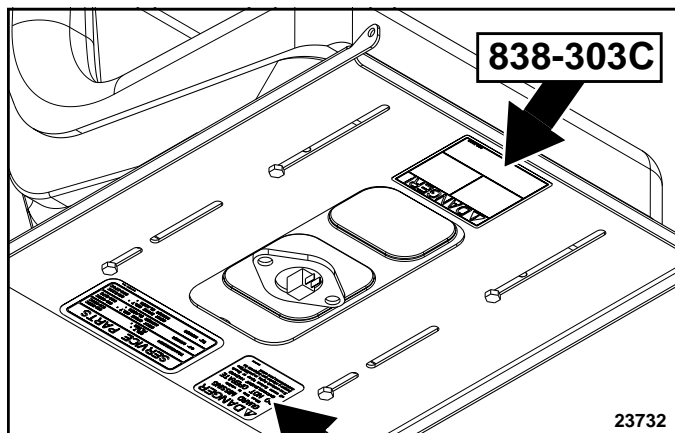


Important Safety Information

Safety Labels

Your mower comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

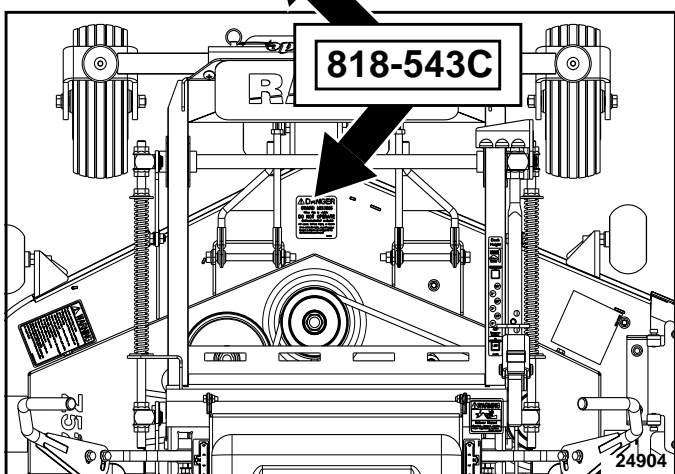
1. Keep all safety labels clean and legible.
2. Replace all damaged or missing labels. To order new labels go to your nearest Land Pride dealer.
3. Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.



838-303C

Danger: Battery

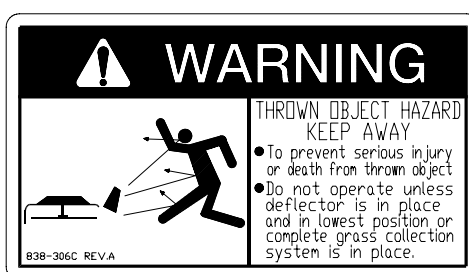
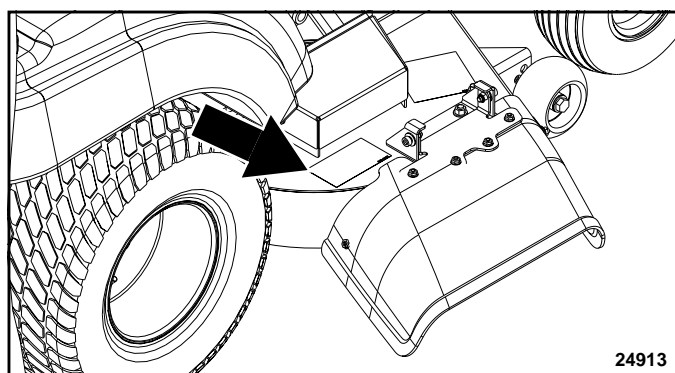
(In Engine Compartment Beneath The Seat Mount)



818-543C

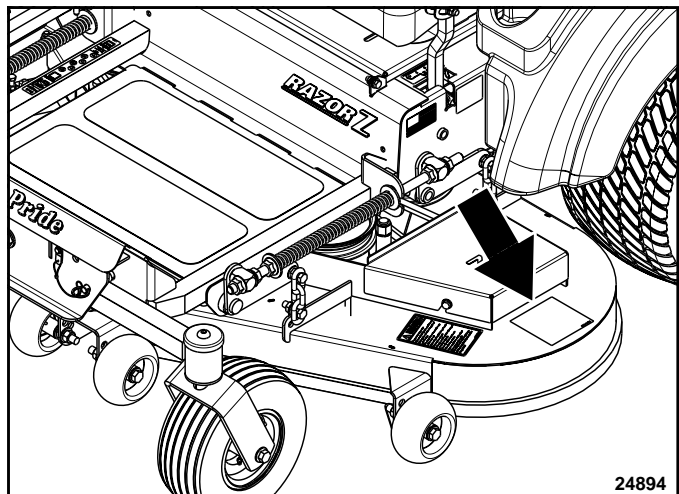
Danger: Guard Missing

(In Engine Compartment Beneath Seat Mount)
(On deck beneath floor platform)

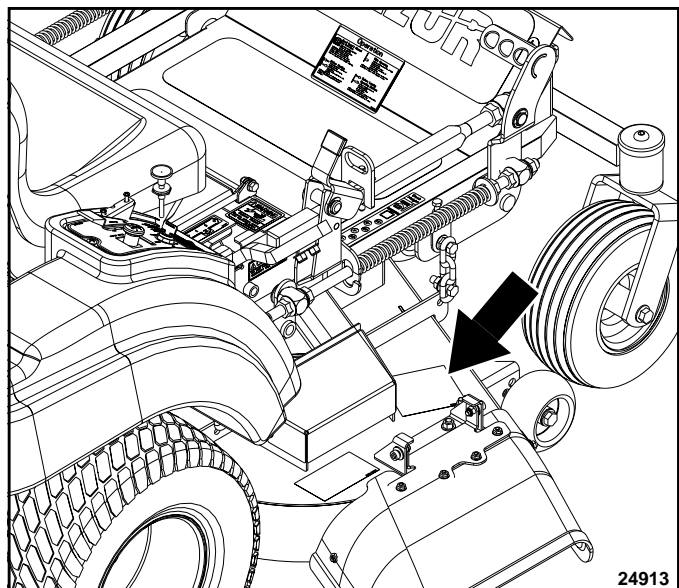


838-306C

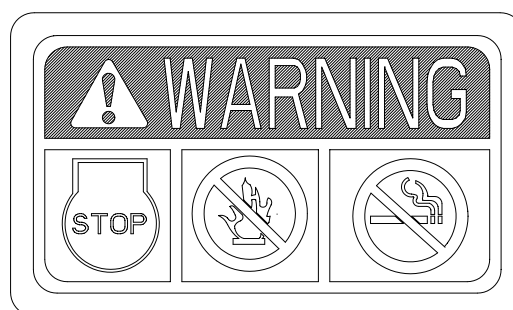
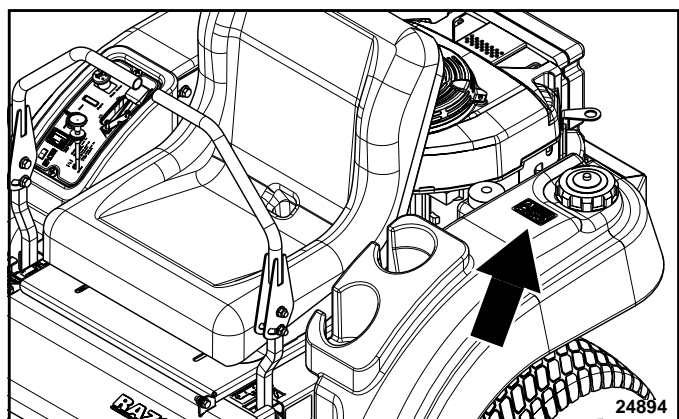
Warning: Do not operator without deflector

Important Safety Information**838-307C**

Warning: Moving Parts

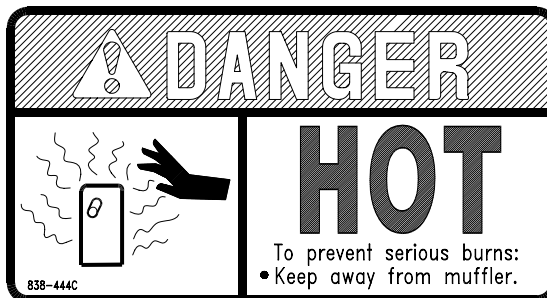
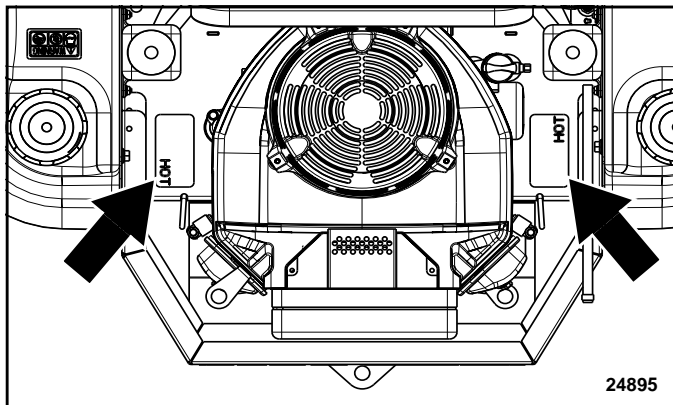
**838-308C**

Warning: Rotating Blade Hazard

**838-833C**

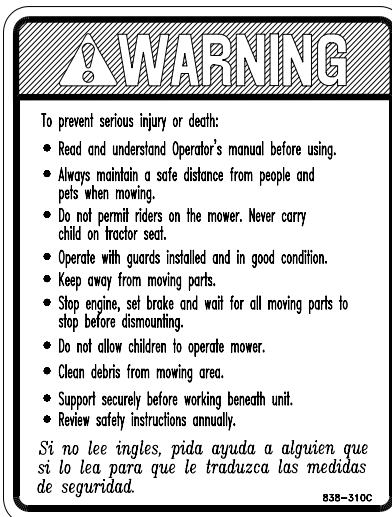
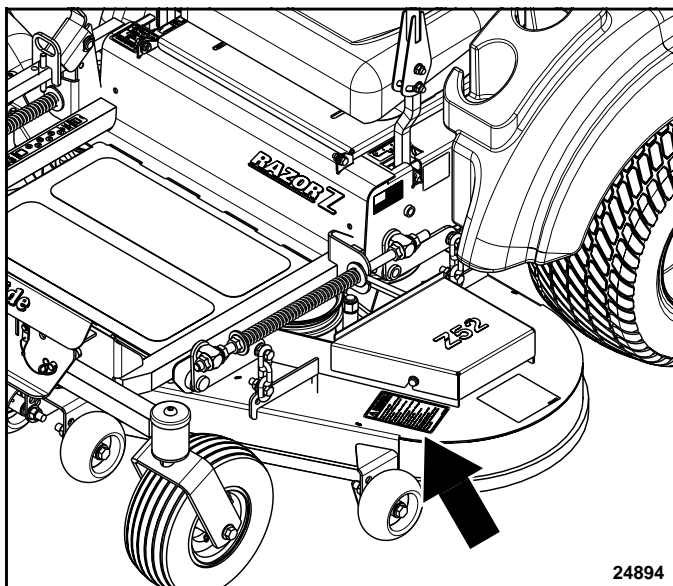
Warning: Fuel (Imbedded in Fuel Tank)

Important Safety Information



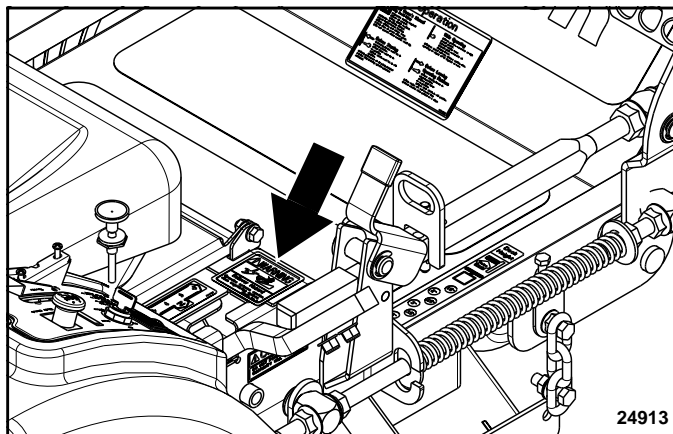
838-444C

Danger: Muffler Hot
(Both Sides of Engine)



838-310C

Warning: General



838-815C

Warning: Rollover Hazard

Introduction

Land Pride welcomes you to the growing family of new product owners.

This mower has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance and safe operating practices will help you get years of satisfactory use from the machine.

Application

The Accu-Z[®] Razor Mowers from Land Pride are compact in size and ideal for homeowner grass maintenance. The Razor is a true zero-turn mower: When mowing alongside a building or landscaping, the Razor allows you to turn away and not hit anything with the rear end. Also, the control lever heights are adjustable making the mower comfortable to handle.

See “**Section 5: Specifications & Capacities**” on page 43 and “**Section 6: Features and Benefits**” on page 45 for additional information and performance enhancing options.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator's or Parts Manual contact your authorized dealer. Manuals can also be downloaded, free-of-charge from our website at www.landpride.com or printed from the Land Pride Service & Support Center by your dealer.

Terminology

“Right” or “Left” as used in this manual is determined by facing forward while sitting in the operator seat unless otherwise stated.

Definitions

NOTE: A special point of information that the operator must be aware of before continuing.

IMPORTANT: A special point of information related to its preceding topic. Land Pride's intention is that this information should be read and noted before continuing.

Owner Assistance

The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

If customer service or repair parts are required contact a Land Pride dealer. A dealer has trained personnel, repair parts and equipment needed to service the mower.

The parts on your mower have been specially designed and should only be replaced with genuine Land Pride parts. Therefore, should your mower require replacement parts go to your Land Pride Dealer.

For parts and service to your mower engine, contact your nearest engine dealer or call Customer Service Hotline provided below.

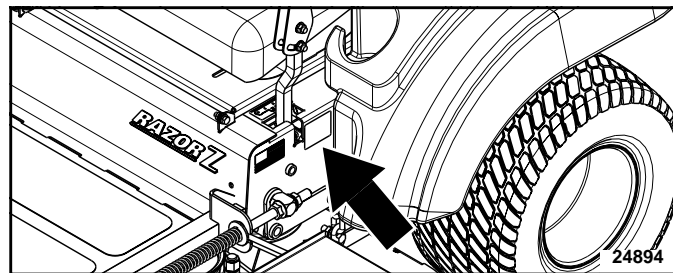
Service Manual: Honda 18 HP - P/N GXV610K1
Honda 20 HP - P/N GXV620K1
B&S 22 HP - 273521-5/99
B&S 26 HP - 273521-5/99

Owner's Manual: Honda 18 HP - P/N 31ZJ4620
Honda 20 HP - P/N 31ZJ4620
B&S 22 HP - 276245-5/05
B&S 26 HP - 276245-5/05

Honda Service Hotline: 1-770-497-6400
B&S Service Hotline: 1-800-999-9333

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your Land Pride dealer. Be sure to include your serial and model numbers in correspondence also. Refer to Figure 1 for the location of your serial number plate.



Serial Number Plate Location
Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new mower. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss the matter with your dealership service manager making sure he is aware of any problems you may have and that he has had the opportunity to assist you.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem and request assistance.
3. For further assistance write to:

Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060
E-mail address
lp servicedept@landpride.com

Section 1: Assembly & Set-up

NOTE: For correct torque values, refer to "Torque Values Chart" on page 48.

Uncrating Instructions

The crate is assembled with nails and the mower frame is secured to the crate floor with metal bands.

1. First, pry off the top panel and then the side panels and then the end panels.
2. Cut and remove metal bands securing front and rear wheels to the crate floor. Discard bands.
3. Complete assembly instructions and engine preparations below before driving mower off the crate floor.

Control Lever Assembly

Refer to Figure 1-1:

Control levers (#1A & #1B) are factory shipped rotated down and secured with bolts in control levers.

1. Loosen bolt (#3B) on upper right control lever (#1R).
2. Remove bolt (#3A) from lower control lever (#9R).
3. Rotate control lever up until slot in upper control lever aligns with hole in lower control lever.
4. Reinstall 3/8"-16 1 1/2" GR5 hex head bolt (#3A) and 3/8" hex flange lock nut (#2).
5. Repeat steps 1 to 4 for the left control lever (#1L).
6. Align control lever handles with each other and tighten bolts (#3A & #3B) to the correct torque.

NOTE: See "Upper Control Lever Adjustments" on page 22 for final adjustments to the control levers.

Seat Assembly

Refer to Figure 1-1:

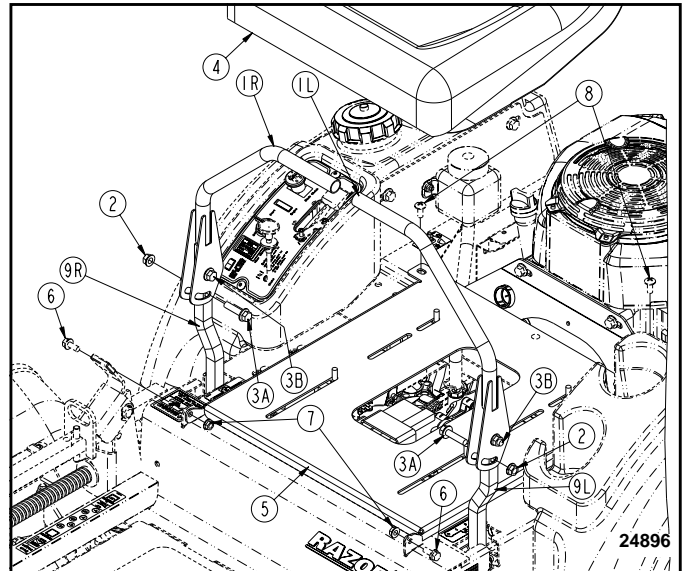
Seat (#4) is shipped mounted to hinge platform (#5) and attached to the shipping crate with lag bolts.

IMPORTANT: Be careful not to cut the seat cover when removing packing material around the seat. **Cutting the seat cover will void its warranty.**

IMPORTANT: The arm rests on the Deluxe Seat must be pivoted up when attaching the seat platform to the mower deck. **Leaving arm rests down while attaching the seat platform can cut the arm rest covers and void the warranty.**

1. Remove the two lag bolts securing seat (#4) and platform (#5) to the shipping crate.
2. Spread control levers (#1) fully apart and pivot deluxe seat arm rest up.
3. Mount seat platform to hinge tabs at the front with two 5/16"-18 x 5/8" lg. GR5 bolts (#6) and two hex flange locknuts (#7). Tighten nuts snugly to remove all play and then back nuts up one-quarter turn.

4. Locate and connect mower switch wires to the operator pressure switch under the seat.
5. Hinge the seat platform down and secure in place with two 5/16"-18 x 3/4" lg. phillips head machine screws (#8).
6. The seat platform is slotted so the seat can be adjusted to fit the operator. See "Seat Adjustment" on page 22 for positioning.



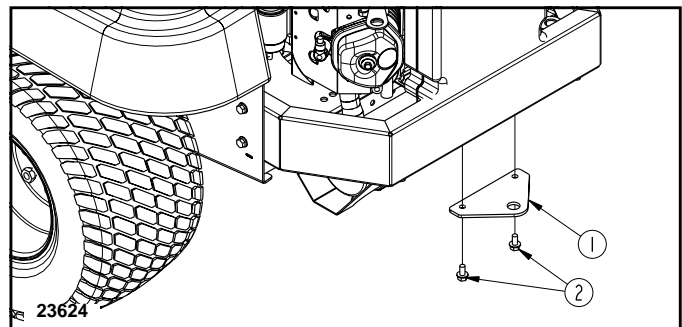
**Control Lever & Seat Assembly
(Standard Seat Assembly Shown)
Figure 1-1**

Hitch Plate Assembly

Refer to Figure 1-2:

Hitch plate (#1) is shipped mounted to the mower's rear bumper ready for use. If not, the plate will need to be removed, turned around and remounted as follows:

1. Remove two 5/16"-18 x 5/8" GR5 hex flange screws (#2) and hitch plate (#1) from under the bumper.
2. Rotate and reinstall hitch plate (#1) as shown with existing 5/16"-18 x 5/8" GR5 hex head flange screws.
3. Tighten 5/16" hex head flange screws (#2) to the correct torque.



**Hitch Plate Assembly
Figure 1-2**

Section 1: Assembly & Set-up

IMPORTANT: Do not pull a trailer or implement exceeding 300 pounds towing capacity and 50 pounds tongue weight. Loss of control may result. Do not make turns that will cause a trailer or implement being towed with the hitch to come in contact with the mower or damage may result.

Electrical Cable Connection

Refer to Figure 1-3:



WARNING

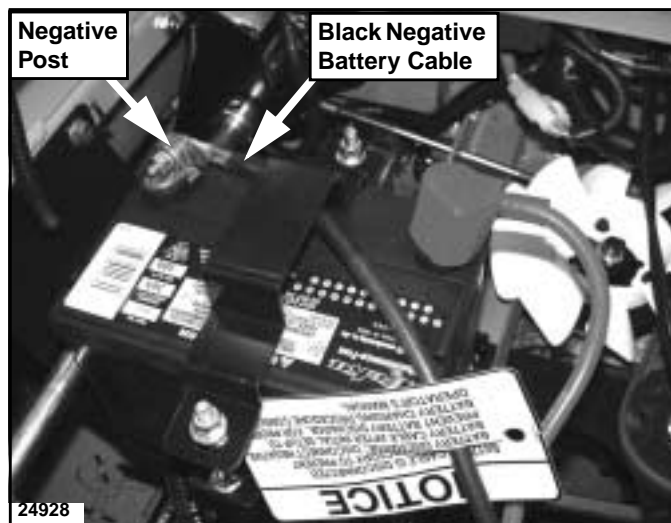
Incorrect battery cable connections can damage mower's electrical system and cause battery cables to spark. Sparks around a battery can result in a battery gas explosion and personal injury.

- Always **disconnect** negative (black) battery cable before disconnecting positive (red) cable.
- Always **reconnect** positive (red) battery cable to the positive (+) post before reconnecting negative (black) cable to the negative (-) post.



WARNING

Keep battery terminals from touching any metal mower parts when removing or installing the battery. Do not allow metal tools to short between the battery terminals and metal mower parts. Shorts caused by battery terminals or metal tools touching metal mower components can cause sparks. Sparks can cause a battery gas explosion which will result in personal injury.



Connecting the Negative Cable
Figure 1-3

IMPORTANT: The negative battery cable is disconnected before leaving the factory and is to be disconnected after initial dealer set-up to prevent battery discharge while setting on the dealer lot.

Connect the black negative battery cable to the battery's negative post with 1/4"-20 x 3/4" GR5 hex head serrated screw, flat washer, lock washer and nut before starting the mower. Tighten hex nut to 8 ft. lbs. of torque.

Engine Preparations

1. Check engine oil level at the dipstick. Add oil if oil is below the full mark on the dipstick. **Do not overfill.** Refer to engine manual for oil recommendation. Also see "Engine Oil and Oil Filter" instructions on page 36.

NOTE: Vehicles are shipped from the factory with about a quart of fuel in the tank.

2. See "Fuel System" instructions on page 35 before adding fuel. Add fuel to the fuel tank.

Remove Mower From Crate Floor

IMPORTANT: Thoroughly read and understand "Section 2: Operating Procedures", pages 10 to 18 before starting and moving the mower.

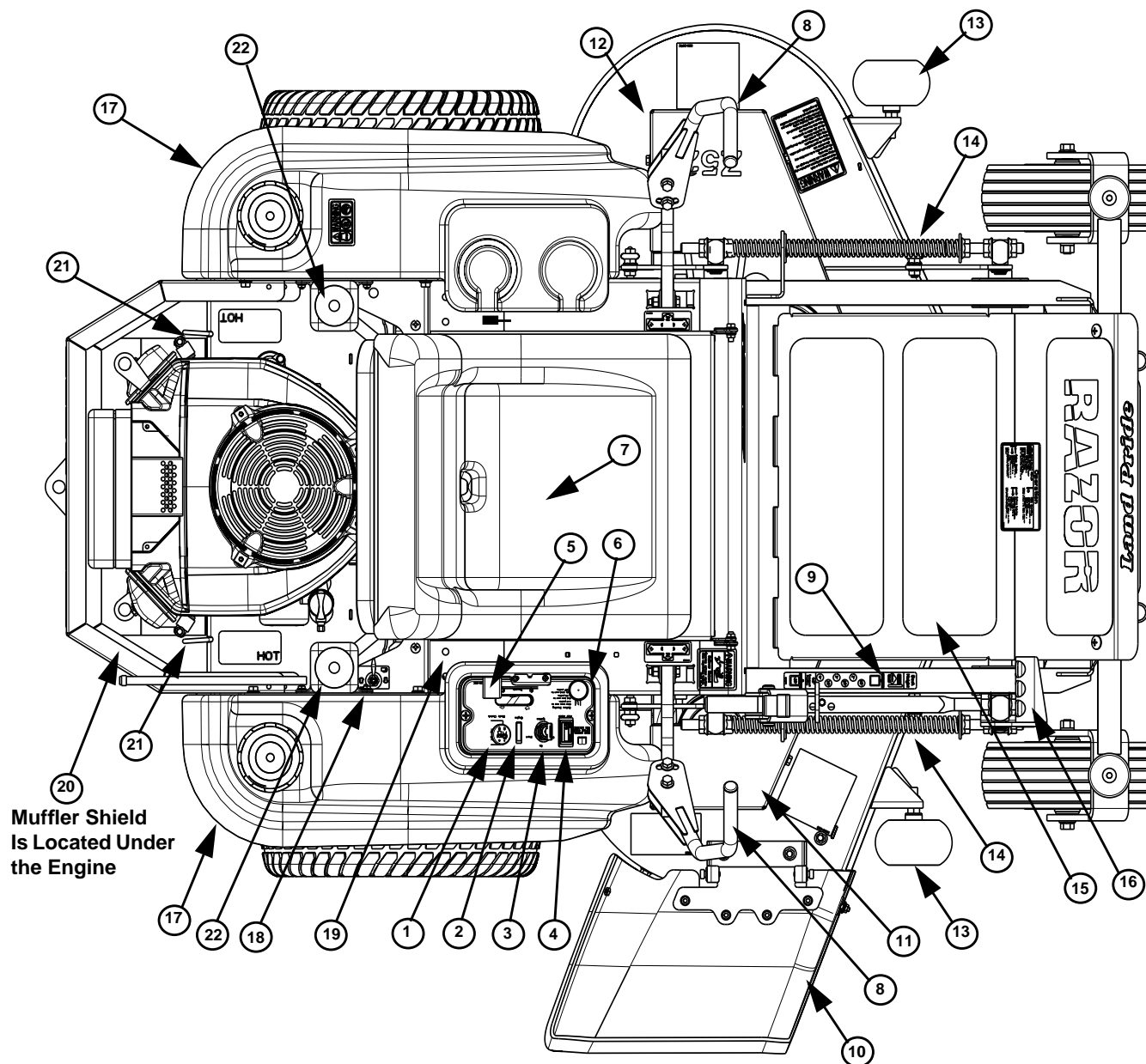
1. Make a ramp in front and level with the crate floor to be used for driving the mower off.
2. Check under the mower to make sure it is not banded to the crate floor. Remove any bands that are still present.
3. Follow all precautions and operating information provided in "Section 2: Operating Procedures" before starting and driving the mower off.
4. Raise deck fully up.
5. Start the engine and drive the mower forward off the crate floor.
6. Make necessary adjustments to the mower as outlined in "Section 3: Adjustments" beginning on page 19.

Mower Features

Refer to Figure 2-1:

Your Razor riding mower is designed with innovative and state-of-the-art features. Knowing the location and how

these features work will make handling your mower more comfortable. Below is a list of the major features we will be reviewing in this section.



24895

- | | | |
|-------------------------------------|------------------------------|--------------------------------------|
| 1. Blade Engagement Switch | 9. Deck Height Indicator | 17. Fuel Tanks |
| 2. Oil Pressure Light | 10. Discharge Chute (Guard) | 18. Left/Right Fuel Tank Valve |
| 3. Ignition Switch | 11. Right Deck Cover (Guard) | 19. Seat Platform (Guard) |
| 4. Hour Meter | 12. Left Deck Cover (Guard) | 20. Muffler Shield (Guard) |
| 5. Throttle Lever | 13. Anti-Scalp Wheels | 21. Bypass Valve Rods |
| 6. Choke Lever | 14. Deck Adjusting Rod | 22. Expansion Tank for Hydraulic Oil |
| 7. Battery (Located under the seat) | 15. Floor Platform (Guard) | |
| 8. Control Levers | 16. Deck Lift Pedal | |

Razor Features
Figure 2-1

Section 2: Operating Procedures

Operating Check List

Hazard control and accident prevention are dependent upon awareness, concern, prudence and proper training involved in operation, transport, maintenance and storage of the riding mower. Therefore, it is absolutely essential that no one operates the mower without first having read, fully understood and become totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- **Important Safety Information**, pgs. 1 to 6
- **Section 1: Assembly & Set-up**, pg. 8
- **Section 2: Operating Procedures**, pgs. 10 to 18
- **Section 3: Adjustments**, pgs. 19 to 26
- **Section 5: Maintenance & Lubrication**, pgs. 29 to 42

Before beginning to operate your mower the following Operating Checklist should be performed:

Operating Checklist

✓ Check	Reference
Read "Important Safety Information"	Page 1
Read "Operating Procedures"	Page 10
Lubricate mower as needed. Refer to <i>Lubrication</i> .	Page 41
Check mower safety start interlock system daily prior to operation.	Page 13
Check mower initially and periodically for loose bolts & pins, <i>Torque Values Chart</i> .	Page 48
Make sure all guards and shields are in place.	Page 10
Check blade for nicks and sharpness.	Page 39

Instrumentation

Engine Oil Pressure Light

Refer to Figure 2-2:

This light comes on when ignition switch is placed in **RUN** position and stays lit until the engine is running with a safe oil pressure. Shut engine off immediately if light comes on during operation. Locate and correct the problem.

Hour Meter

Refer to Figure 2-2:

Registers 1/10 hour increments up to 9,999.9 total hours. The meter is connected to the ignition switch and records accumulative time only while the engine is running. See "Maintenance Schedule" on page 30.

Controls

For general location of the controls described in this section, refer to Figure 2-1 on page 10 and Figure 2-2 on page 11.



WARNING

Do not operate mower while smoking!

Ignition Switch

Refer to Figure 2-2:

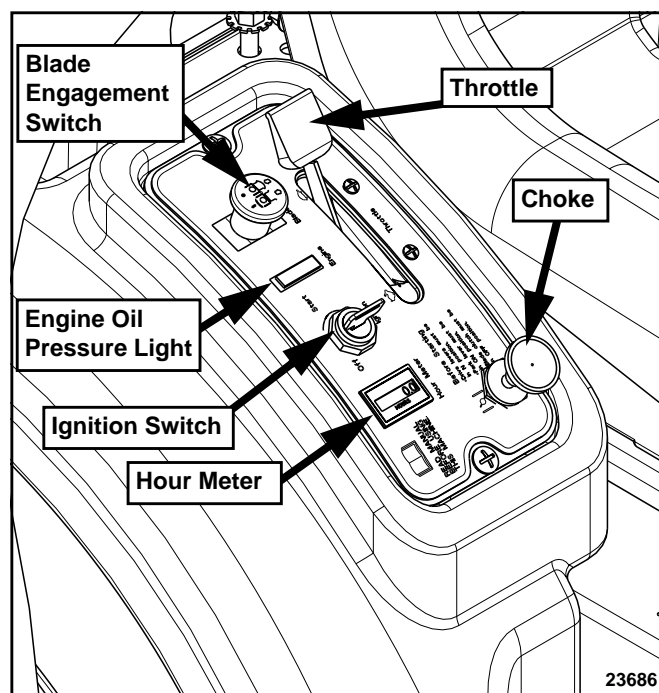
A three position ignition switch: off, run, and start is provided. With key inserted, rotate it clockwise to **START** position; release key when engine starts, and switch will automatically return to **RUN** position. Turn key counterclockwise to **OFF** position to stop engine.

Throttle

Refer to Figure 2-2:

A cable is linked from engine to throttle for controlling engine speed. Move throttle lever forward to increase engine rpm and rearward to decrease rpm. Always travel and cut grass with throttle set at full engine rpm speed. Slow down travel speed by pulling back on the control levers. Slow engine rpm speed only if mower is not traveling or powering the cutting blades.

IMPORTANT: Always operate throttle at full engine rpm while traveling or cutting grass. Slow engine rpm may overheat engine and hydraulic pumps.



Control Panel
Figure 2-2

Choke

Refer to Figure 2-2:

A cable is linked from engine to choke knob to choke the engine during starting. When choke control knob is down, the choke is off (engine running position). When control knob is pulled up, the choke is on (engine starting position). Shut choke off soon after engine has started.

IMPORTANT: **DO NOT** operate mower with choke pulled up or on. (engine starting position).

Section 2: Operating Procedures

Blade Engagement Switch

Refer to Figure 2-2:

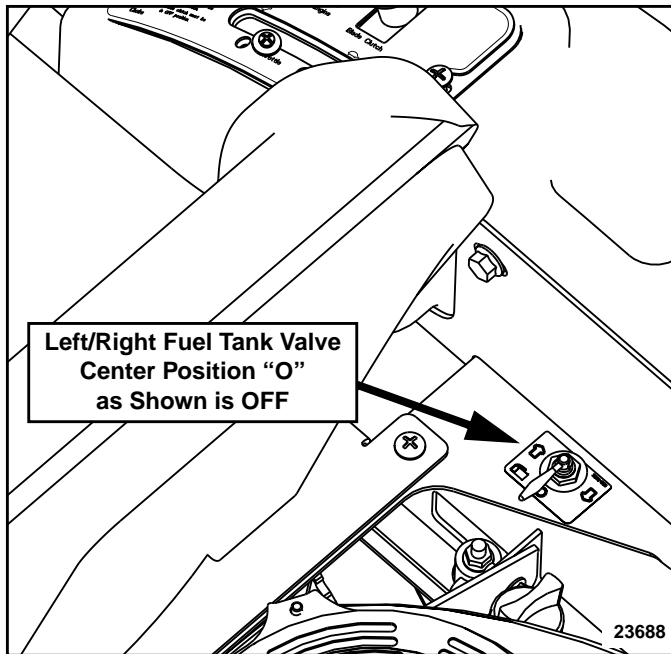
The blade engagement switch engages the deck blades. Pull switch up to engage blades and push switch down to disengage the blades.

IMPORTANT: Never engage blades with engine running at high rpm or when the deck is under load. Clutch, belts or deck could be damaged.

Left/Right Fuel Tank Valve

Refer to Figure 2-3:

Located behind the seat on one side is the Left/Right Fuel Tank Valve for controlling which fuel tank is in use. The valve lever must be over one of the two arrows to supply fuel to the engine. Arrows point to the fuel tank being used. Switch valve from one tank to the other when tank in use is about out of fuel. The mower does not have to be turned off to make the switch. See "Fuel System" on page 35 for more information.



Left/Right Fuel Tank Valve
Figure 2-3

Control Levers

Refer to Figure 2-4 and Figure 2-5:

The control levers are used to steer, accelerate, brake, change direction and set the park brake.

Always set both control levers in park position by spreading full apart before getting off the mower and always leave control levers in park until seated and ready to start traveling.

Pull control levers together at the handles to release park brakes. Move control levers either forward or rearward from neutral position to start moving.

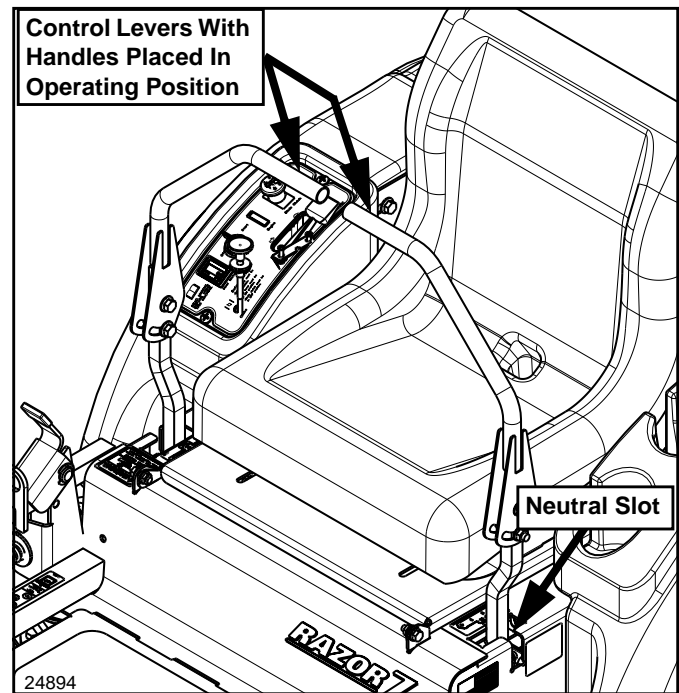
WARNING

The park brake is not designed to hold the mower on steep slopes.

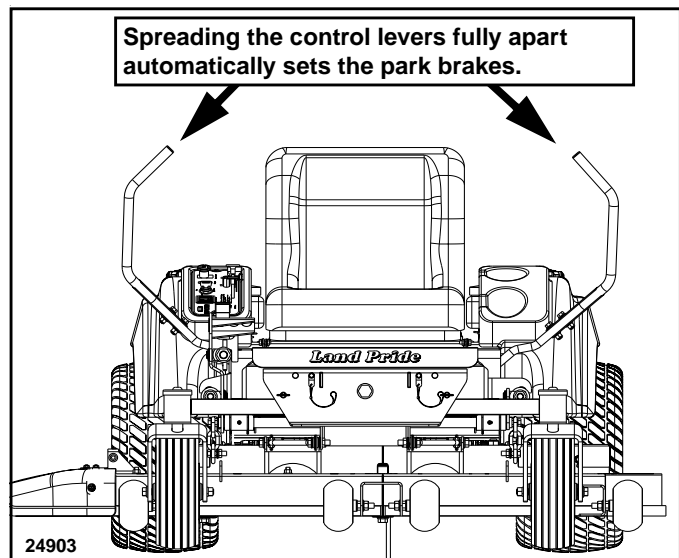
Move the control levers to neutral to stop and fully apart to set park brakes.

IMPORTANT: Both control lever must be spread fully apart before park brakes are applied.

See "Driving the Mower" on page 14 for a detailed description of operating the control levers.



Control Levers
Figure 2-4



Control Levers Spread Fully Apart
Figure 2-5

Section 2: Operating Procedures

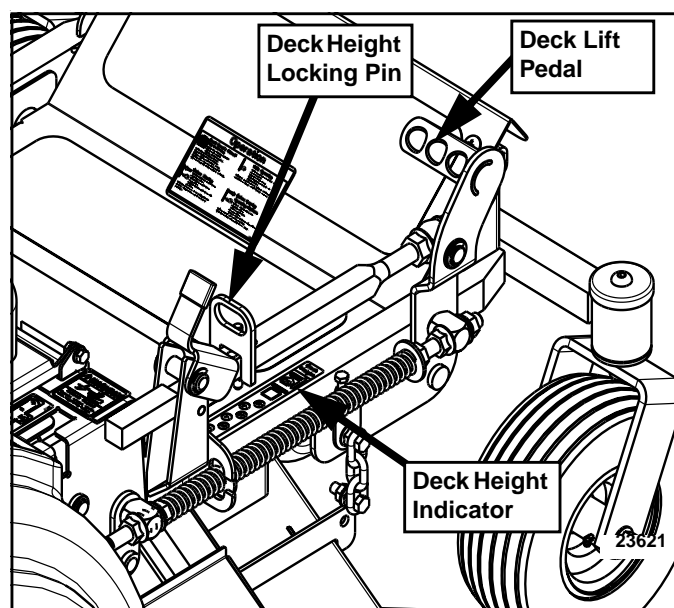
Deck Lift Pedal

Refer to Figure 2-6:

The deck lift pedal is used to raise and lower the deck and to set deck cutting height.

1. Pushing on the deck lift pedal with your foot will raise the deck.
2. Using the deck height indicator, place deck height locking pin into the desired cutting height hole.
3. Lower deck gently against locking pin.

When going over obstructions, push the deck lift pedal to raise the deck. Go around the obstruction if the deck will not raise high enough. **Never mow over obstructions you are not certain the deck will clear.**



Deck Lift Pedal
Figure 2-6

Safety Start Interlock System

The mower is equipped with a safety start interlock system consisting of park switches, seat switch and blade engagement switch. This system is an important mower safety feature designed to prevent runaway or accidental entanglement.

If blade engagement switch is **ON** or if a control arm is out of park and the operator gets off the seat, the engine will stop.

If blade engagement switch is **OFF** and both control arms are in park and the operator gets off the seat, the mower engine will continue to run.

The safety start interlock system should be checked daily prior to operation and repaired immediately if it malfunctions. Inspect system as follows:

1. The operator must be on the seat when testing the seat safety switch.
2. Spread both control levers fully apart.

3. Start mower engine per instructions outlined in section on Engine Starting below. Allow engine to warm up to operating temperature.
4. With blade engagement switch down (**OFF**), and control levers spread fully apart (set in park position), slowly raise off the seat. The engine should continue to run.
5. Pull the right control lever in and slowly raise off the seat. The engine should **stop** within five seconds.
6. With control levers spread fully apart, restart engine.
7. Pull the left control lever in and slowly raise off the seat. The engine should **stop** within five seconds.
8. With control levers spread fully apart, restart engine.
9. With control levers set in park position (fully apart) and engine running at a slow idle, pull up on the blade engagement switch to turn blades (**ON**). Slowly raise off the seat. The engine should **stop** within five seconds.
10. Replace seat safety switch if switch failed to operate properly in any of the above steps and if no other cause such as damaged wiring can be determined.
11. Contact your local Land Pride Dealer if the problem cannot be located.

Engine Starting



WARNING

Never leave the machine unattended with key in ignition switch.

The Razor safety start interlock system is also designed to protect the operator and others from accidental injury due to unintentional engine starting.

NOTE: The starting motor will not engage until both control levers are spread fully apart (Set in park position) and blade engagement switch is in down position (**OFF**).

The engine will stop if for any reason the operator should become unseated when one or more control levers are not in park position or if blade engagement switch is (**ON**).

The following steps are correct procedures for starting the engine. If difficulty is encountered, contact your local Land Pride Dealer.

1. Perform daily pre-operation checks. (See "Operating Check List" on page 11.)
2. Make sure both control levers are in park position, and blade engagement switch is disengaged (**OFF**).
3. Set throttle at approximately 1/2 open position.

NOTE: Use choke when engine is cold or if warm engine fails to start within 5 seconds of cranking. Avoid flooding. Operate engine without choking as soon as possible.

Section 2: Operating Procedures

NOTE: The engine starter should not be operated for periods longer than 30 seconds at a time. An interval of at least two minutes should be allowed between such cranking periods to protect the starter from overheating and burn-out.

4. Insert key in ignition switch and rotate clockwise to engage starting motor. Release key when engine starts.
5. Perform test to make sure safety start interlock system is operating properly. Refer to “**Safety Start Interlock System**” on Page 13.
6. As soon as engine begins to run, check to make certain the oil warning light is off. If not, stop engine immediately and check for the cause. Refer to “**Troubleshooting**” on page 46.
7. Allow engine to idle a few minutes before advancing throttle and/or engaging blades.
8. Before stopping the engine:
 - Disengage blade engagement switch.
 - Place both control levers in park position.
 - Throttle back to low idle for one minute to allow accumulated raw fuel to escape muffler during engine slow down.
 - Rotate ignition key counter-clockwise to **(OFF)** position.
 - Remove key from switch before leaving the seat.

Driving the Mower



DANGER

Never make sudden stops or sudden reversing of direction, especially when going down a slope. The steering is designed for sensitive response. Rapid movement of control levers in either direction could result in a reaction that can cause serious injury.



DANGER

Never make sudden speed changes from reverse to forward. Always push control levers forward gently to avoid sudden change in speed. Any sudden forward speed change can cause the front wheels to raise off the ground resulting in loss of control, mower damage and/or personal injury.

To Start and Increase Speed

Refer to Figure 2-7 on page 15:

After starting the engine, engage control levers by moving the handles towards each other. This moves the levers from park position to neutral position and makes them ready for steering while traveling.

Moving control levers an equal distance away from neutral will increase travel speed.

- Start forward travel by gently pushing on the control levers. The further forward the control levers are pushed the faster the travel speed.

- Start backing up by gently pulling on the control levers. The further back the control levers are pulled the faster the travel speed.

To Decrease Speed and Stop



WARNING

In the event of a system shutdown while mowing, move control levers to neutral and spread them fully apart to aid in slowing and stopping the mower. See Figure 2-5 on page 12. Also turning the ignition switch to off will set the rear park brakes without positioning of the control levers in park.

Refer to Figure 2-7 on page 15:

Moving control levers an equal distance towards neutral will decrease travel speed.

- When moving forward, pull back gently on control levers to decrease speed. The further back the control levers are pulled the slower the travel speed until neutral is reached.
- When backing up, push forward gently on control levers to decrease speed. The further forward the control levers are pushed the slower the travel speed until neutral is reached.
- Move control levers to neutral to stop.
- Spread both control levers fully apart to apply rear park brakes.

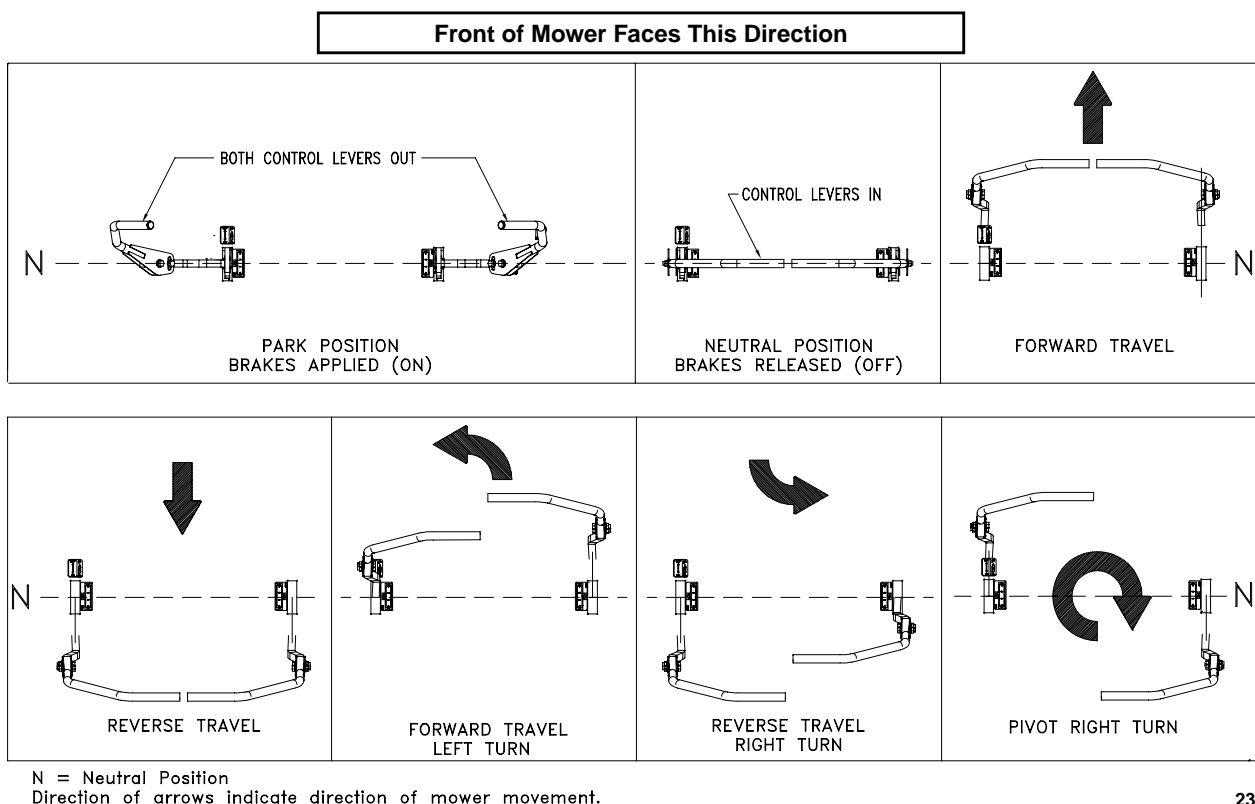
IMPORTANT: Parks brakes will automatically apply when ignition switch is turned off. This allows the operator to set park brakes quickly without returning control levers to park.

To Steer

Refer to Figure 2-7 on page 15:

- To Steer Straight While Traveling Forward:
 - Push control levers forward an equal distance.
- To Steer Straight While Backing Up:
 - Pull control levers rearward an equal distance.
- To Turn Left While Traveling Forward:
 - Move right control lever farther forward from neutral than the left control lever.
- To Turn Left While Backing Up:
 - Move right control lever farther back from neutral than the left control lever.
- To Turn Right While Traveling Forward:
 - Move left control lever farther forward from neutral than the right control lever.
- To Turn Right While Backing Up:
 - Move left control lever farther back from neutral than the right control lever.
- To Make A Pivot Turn:
 - Move one control lever forward and the other control lever back of neutral, this will allow the drive wheels to counter-rotate.

Section 2: Operating Procedures



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Figure 2-7

Moving Mower with Stalled Engine

Refer to Figure 2-8:

Each hydro-drive is equipped with a bypass valve for the purpose of moving the mower when the engine is inoperable.

Moving the mower with a good battery

1. Pull out on the bypass valve rods and lift them into the slot to lock in position. Both bypass valve rods are located at the rear of the engine platform.
2. Position both control levers in neutral with the handles together.
3. Turn ignition switch to on. Do not start the mower.
4. Manually move mower by hand or with a winch.

Moving the mower with a bad battery

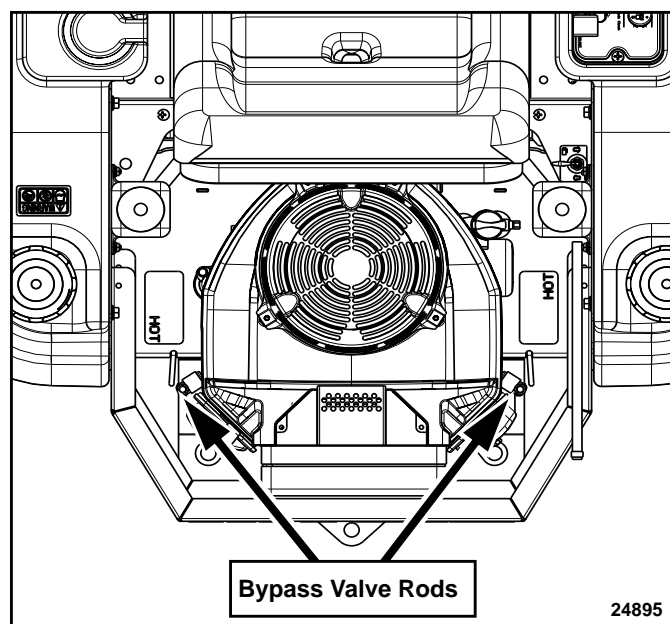
1. Pull out on the bypass valve rods and lift them into the slot to lock them in position.

Refer to Figure 5-6 on page 34:

2. Remove hair pin cotter (#5), flat washer (#3) and clevis pin (#1) from actuator arm (#2). Be certain to do this to both the right and left transaxles. Push brake lever arms up to release park brakes.
3. The mower should move with moderate pressure once the park brakes have released.
4. Manually move mower by hand or with a winch.

IMPORTANT: Do not tow machine. Move it by hand or use a winch and load it on a trailer.

IMPORTANT: Following repairs, always make certain the two bypass valves are returned to their operating position and actuator pins are reinstalled.



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Bypass Valve
Figure 2-8

Section 2: Operating Procedures

Safe Operating Instructions

The safe operation of any machinery is a big concern to all consumers. Your Zero Turn Riding Mower has been designed with many built-in safety features. However, no one should operate this mower before carefully reading this Operator's Manual. Also read all instructions noted on the safety decals.

- ▲ Be familiar with all functions of this mower.
- ▲ Do not operate a mower with damaged parts. Repair all damaged and defective parts before putting mower back in to service.
- ▲ Keep all bystanders away from this mower during operation.
- ▲ Do not allow anyone to operate this mower who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of this mower.
- ▲ Do not allow anyone under 16 years of age to operate this mower.
- ▲ No riders allowed. Carrying a rider can result in injury and/or death to the rider and operator.
- ▲ Do not operate mower while drinking or under the influence of alcohol or drugs.
- ▲ Always park on level ground, place both control levers in park position and remove ignition key before leaving the mower.
- ▲ Do not leave mower unattended with engine running.
- ▲ Always operate mower with belt guards installed. Do not leave pulleys and belts exposed.
- ▲ Wear snug-fitting clothing to avoid entanglement with moving parts.
- ▲ Keep hands, feet, long hair, clothing and jewelry away from moving parts and obvious pinch points to avoid getting caught.
- ▲ Always be aware of and avoid tree limbs and brush that have a potential of hitting and/or poking one while riding the mower. Serious body harm could result.
- ▲ Always wear long pants, safety glasses and safety shoes. Some conditions may warrant extra safety gear to be worn such as safety helmets.
- ▲ Do not touch engine, engine exhaust pipe and/or muffler while they are hot.
- ▲ Use extreme caution when driving through dry grass, brush and other fire hazard materials. Never stop or park over combustible materials. Keep grass and brush from collecting on and around engine and muffler parts.
- ▲ Battery fumes are explosive. A spark will ignite battery fumes. Wear a face shield when charging or jumping a battery. Follow all battery safety rules outlined in this manual.
- ▲ Avoid battery acid spills. Do not get battery acid on eyes, face, or other body parts. Flush eyes and other body parts immediately with water for at least 15 minutes if battery acid has gotten on them.
- ▲ Do not operate this mower on streets, highways, public roads, or where it may be a hazard to faster moving traffic.
- ▲ Never attempt wheelies, jumps, or other stunts. Never drive recklessly. Always operate your mower at a safe speed that will allow you to maintain control.
- ▲ Never modify engine RPM, or any parts on the mower without authorization. Unauthorized modifications will void warranty to all parts directly and indirectly affected by the modification.
- ▲ Do not pull a trailer or implement exceeding a gross weight of 300 pounds and 50 pounds tongue weight. Loss of control may result. Do not make turns so sharp as to cause trailer or implement being towed to come in contact with the mower. Damage may result.
- ▲ Do not attach an implement, trailer or other device to the hitch that will produce negative tongue weight.
- ▲ Do not tow the mower with its wheels on the ground. Always tow the mower loaded on a trailer.
- ▲ Use extreme caution when cresting hills or when visibility is limited. Proceed slowly until you are sure conditions immediately ahead are safe.
- ▲ Reduce speed on hilly, rough, wet, slick or unstable ground. Do not operate mower on slopes over 15°.
- ▲ Do not operate the mower at night. With poor visibility, night operation can lead to a serious accident.
- ▲ When refueling use a UL listed container that has a screen or filter. Set container on the ground before fueling to eliminate static discharge. Do not use Methanol fuel.
- ▲ Do not smoke or use electrical devices including cell phones while refueling.
- ▲ Always maintain proper tire inflation. See "Tires" on page 32.
- ▲ Always disconnect the negative battery terminal before making adjustments to the mower electrical system or welding on this mower.
- ▲ Always check wheel lug nut torque values two hours after initial operation and two hours after each tire repair and/or replacement. Routinely check lug nut torque valves every 50 hours of operation. See "Torque Values" on page 19.
- ▲ Support this mower securely before working beneath. Chock the wheels to prevent the mower from rolling.

Section 2: Operating Procedures



DANGER

Prior to operating the mower the operator should be thoroughly familiar with the proper use and operation of the equipment, should read the manual completely and thoroughly, and should have attempted slow moving maneuvers to become familiar with the operation of the equipment before attempting normal speed operation. An inexperienced operator should not mow on slopes or on uneven terrain.



WARNING

Do not operate the mower while wearing any type of loose fitting clothing. Always wear safety glasses, clothing that does not hang loosely, and shoes or boots when operating this machine.



WARNING

The tailpipe and muffler are very hot and can ignite dry grasses, brush and other flammable materials. Always keep the area around the muffler and tailpipe clear of debris. Allow the muffler and tail pipe to cool completely before removing any debris to prevent severe burns to the body.



WARNING

Never direct discharge of material from mower deck towards bystanders.



WARNING

Never operate the mower deck with discharge chute removed or in raised position.



WARNING

Always check area to be mowed for rocks and other debris before mowing.

The mower's control levers are very responsive. For smooth operation, move levers slowly, avoid sudden movement. Skill and ease of operation come with practice and experience.

Inexperienced operators may have a tendency to over-steer and lose control. Slow-moving practice maneuvers are recommended to become familiar with these characteristics before attempting normal speed operation.

Sharp depressions or raised obstacles (such as gutters or curbs) should not be directly approached at high speed in an attempt to jump them as the operator could be thrown from the mower. Approach at a slow speed and angle one drive wheel at the obstruction. Continue at an angle until both wheels clear the obstruction.

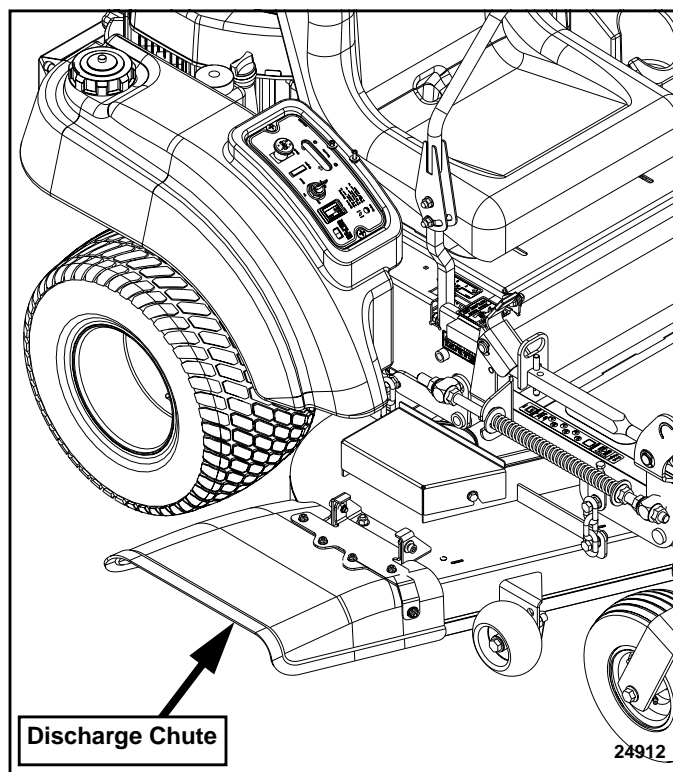
When turning on soft wet turf, keep both wheels rolling either forward or backward. Pivoting on one stopped wheel can damage turf.

Peak mowing performance is maintained when the throttle is set at full rpm. This gives maximum power to the drive wheels and deck when needed. Use the control levers to control ground speed rather than engine rpm.

Keep blades sharp. Many problems with incorrect cutting patterns are due to dull blades or blades which have been sharpened incorrectly. Information on sharpening blades is listed in this manual's maintenance section. In addition, most communities have individuals or companies which specialize in sharpening mower blades. Blade sharpness should be checked daily.

Use high blade speed. Your Razor is designed to operate at full throttle. The throttle setting directly controls blade speed. The highest blade speed generally gives the best cut.

Select a mowing pattern that discharges cut grass away from uncut grass. Generally, this means using a pattern utilizing left turns because the mower discharges cut grass to the right. Refer to Figure 2-9. In any case, avoid discharging cut grass onto an unmowed area because grass is then mowed twice. Mowing twice puts an unnecessary load on the mower and reduces mowing efficiency.



Discharge Chute
Figure 2-9

Section 2: Operating Procedures

Mower Deck Operation

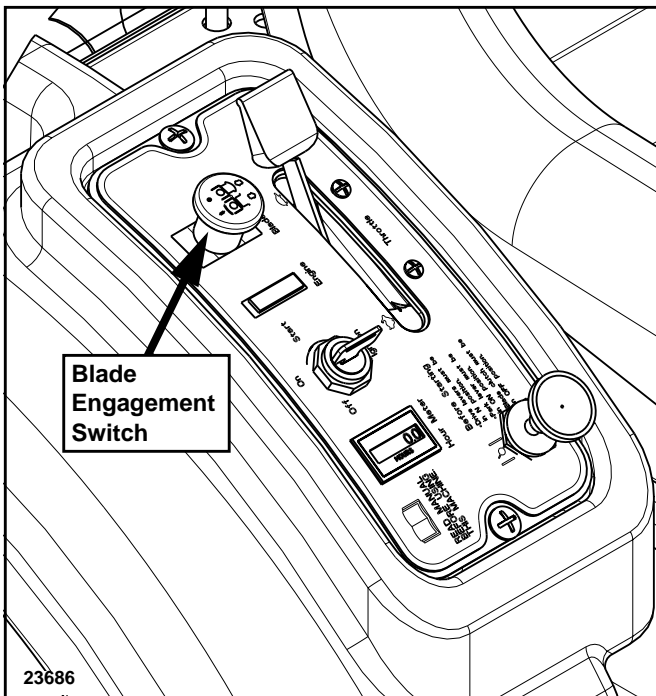


DANGER

Never attempt to make any adjustments to the mower deck while the engine is running or when the blades are engaged. Mower blades cannot be seen and are located very close to deck housing. Fingers and toes can be cut off instantly.

With the engine running at a medium speed, engage blades (Refer to Figure 2-10). Advance engine throttle to full rpm once the blades have become fully engaged.

NOTE: Engaging the blades at high engine rpm or when under heavy load (in tall grass for example) can cause belts to slip, resulting in premature wear or possible damage.



Blade Engagement Switch
Figure 2-10

General Operating Information

After thoroughly familiarizing yourself with the Operator's Manual and completing the Operator's Checklist, you are almost ready to begin mowing.

Approach the mower from the front. Spread the control levers fully apart if they aren't already in the wide-open position. Taking care not to step on either side of the mower deck, step up on the operator's platform and comfortably seat yourself. With both control levers still wide apart reach for the throttle and choke control to your right side. Position the throttle control at half throttle and pull the choke to the "up/on" position. Insert your ignition key and rotate the ignition key clockwise until you hear the engine begin to start. Release the ignition key and push the choke to "down/off" position. Allow the engine to warm up momentarily. If your mower has just been running and the engine is already warm, using the choke is usually not necessary.

With the engine at half throttle, pull the control levers in to bring both control levers equally together in the neutral position just in front of you. It's now time to test your steering skills. Gently push both control levers equally forward. The farther forward you push the levers the faster you will go. Pull back equally and you will slow down coming to a stop when you reach the neutral position. Now slowly pull the levers back toward your body past neutral position. The mower will reverse direction and increase in speed as you pull further back. If you push one lever forward and pull one lever back the mower will do a Zero turn in the direction of the control lever closest to your body. Now take a few moments in a safe area to practice steering your mower with the engine still at half throttle. Gradually increase your throttle speed until you feel totally confident in your mower steering and handling ability.

After removing all obstacles from the lawn, it is now time to cut the grass. With your mower at half throttle, place your right foot on the deck lift pedal and release and lower the deck to your preset cutting height. With your right hand, pull up on the cutting blade engagement knob and increase the engine speed to full throttle. You may now begin mowing.

When you are done mowing or just want to take a break, make sure you:

- Park on level ground
- Disengage the cutting blades
- Throttle back
- Move the control levers to wide-open
- Turn the engine off
- Remove the key
- Step carefully off the front of the machine.

Section 3: Adjustments

WARNING

Unless specifically required, DO NOT have engine running when servicing or making adjustments to the mower. Place both control levers in the park position and remove ignition switch key. Read and observe safety warnings in front of manual.

Repairs or maintenance requiring engine power should be performed by trained personnel only. To prevent carbon monoxide poisoning, be sure proper ventilation is available when engine must be operated in an enclosed area.

Your Razor was adjusted before it left the factory and was checked during pre-delivery set-up. However, after start-up and continued use, a certain amount of break-in wear will cause some adjustments to change.

Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

WARNING

Keep your machine clean. Remove heavy trash deposits and clippings from the machine. Keep all moving parts, hydraulic system, engine cooling system and exhaust system clean of trash and clippings. Accumulation of trash and/or clippings can cause fires, hydraulic overheating and excessive belt wear.

Clear away heavy build-up of grease, oil and dirt, especially in the area of oil, fuel and engine combustion air inlets and openings. Minute dust particles are abrasive to close-tolerance engine and hydraulic assemblies.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Land Pride service center when assistance is needed.

Torque Values

WARNING

Particular attention must be given to tightening the drive wheel lug nuts and blade spindle bolts. Failure to correctly torque these items may result in the loss of a wheel or blade, which can cause serious damage or personal injury.

NOTE: Refer to "Torque Values Chart" and "Additional Torque Values" on page 48 for correct torque values.

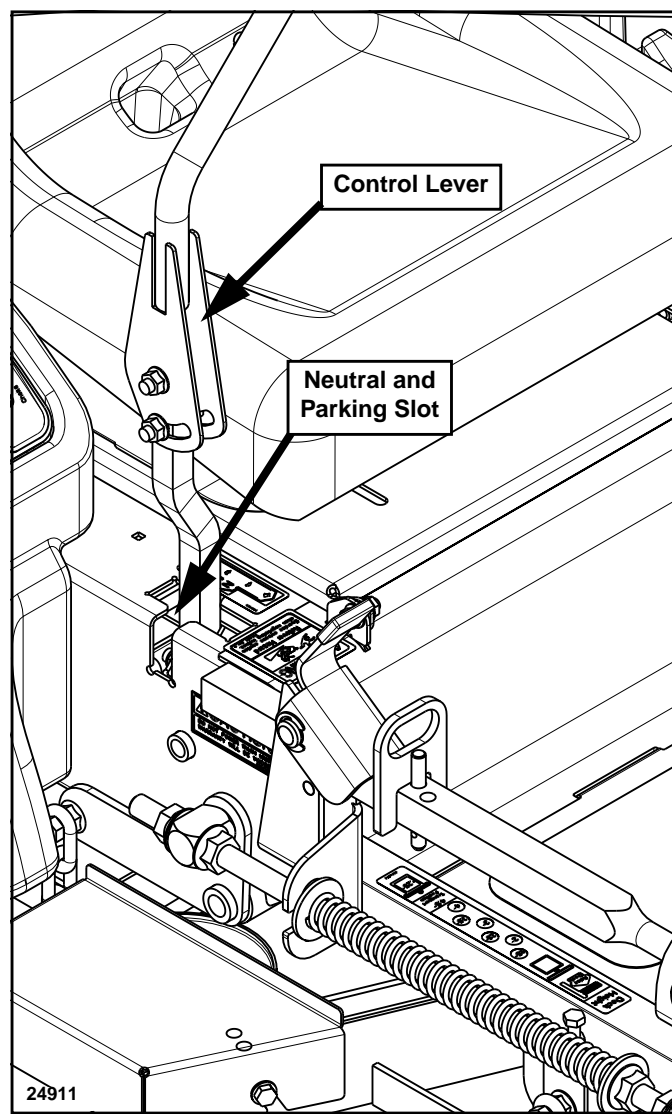
It is recommended that the following be checked after the first 2 hours of initial operation, and every 50 hours following removal for repair or replacement:

- Wheel lug nuts
- Wheel motor nuts
- Blade bolts
- For engine torque values, see engine owner's manual.

Control Lever Steering Adjustments

Refer to Figure 3-1:

The steering has been factory adjusted to eliminate creeping when control levers are in neutral position. However, should the mower begin to creep, adjustments can be made as outlined on the following page.



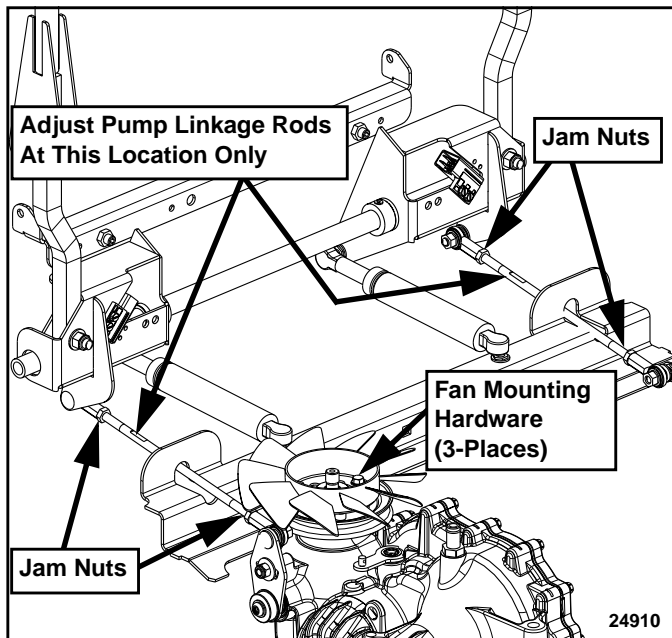
Control Lever In Neutral Position
Figure 3-1

Section 3: Adjustments

Control Lever Neutral Adjustment

Before considering any adjustment, check tire air pressure and make certain hydraulic oil is at operating temperature. Unequal tire pressure will cause mower to drift to one side. Refer to “**Tire Inflation Chart**” on page 23 and page 48.

Adjustments for neutral position are made to the pump linkage rods located between the control lever and pump arms. The pump linkage rods are properly adjusted when control levers are in neutral position and drive wheels are not turning.



Steering Control Linkage
Figure 3-2

WARNING

Make certain mower is secure when it is raised and placed on the jack stands. The jack stands should not allow the mower to move when the engine is running and the drive wheels are rotating. Use only certified jack stands.

WARNING

The transaxle fan and pulley assemblies are turning while making adjustment to the pump linkage rods.

- Always turn off ignition switch before loosening and tightening the jam nuts on the linkage rods.
- Always adjust the linkage rods at the flat surface located farthest from the fan and pulley assembly.
- Do not wear loose clothing that can become entangled in the fan and pulley assemblies.
- Keep hands and other extremities away from the fan and pulley assemblies while the engine is running.

Refer to Figure 3-2:

If the mower creeps in neutral position, adjust pump linkage rods, located under the seat, as follows:

1. Disengage blade switch and turn ignition switch off.
2. Raise and block mower up to support drive wheels off the floor.
3. Position control levers in neutral position.

NOTE: Step 4 is not required but may be done if transaxle fan blades interfere with loosening the jam nuts on the pump linkage rods.

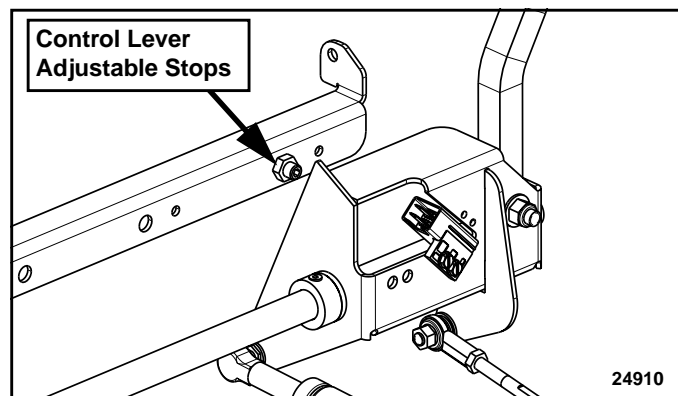
4. Remove fan mounting hardware and transaxle fans if the jam nuts under the fan are not accessible.
5. Loosen jam nuts at both ends of the pump linkage rod by 5 or more full turns (approximately 1/4").
6. Start engine and observe which way the wheels are rotating.
7. If the wheel is rotating forward:
 - a. Rotate rod to shorten the steering control linkage until the wheel comes to a stop.
 - b. Repeat for the opposite side if necessary.
 - c. When both wheels remain in neutral, turn ignition switch off and tighten jam nuts at both ends to lock pump linkage rod(s) in place.
8. If wheel is rotating in reverse:
 - a. Rotate rod to lengthen steering control linkage until the wheel comes to a stop.
 - b. Repeat for the opposite side if necessary.
 - c. When both wheels remain in neutral, turn ignition switch off and tighten jam nuts at both ends of the linkage rods.
9. Reinstall transaxle fans if removed. Tighten fan mounting hardware.
10. Start engine and test neutral adjustment again by moving control levers forward and backward before returning them to neutral position. The unit is ready for operation if the tires do not rotate with the control levers in neutral.
11. With ignition switch off, place control levers in park. Remove support blocking and safely lower mower wheels to the floor.

IMPORTANT: It is important to always readjust the control lever stops after making adjustments to the pump linkage rods. See “Forward Stop Adjustment” on page 21 for adjusting procedures.

Section 3: Adjustments

Forward Stop Adjustment

The control lever stops are designed to do two things: First, and most important, they must keep the pumps from bottoming out internally. Second, the stops may be adjusted to help drive straight when the control levers are pushed forward against the stops.



Steering Control Stop (Right side Shown)

Figure 3-3

Adjust Lever Stops to Protect Pumps

Refer to Figure 3-3:

This adjustment should be made first and must be made with mower engine **NOT RUNNING**. Check one side at a time to make sure each control lever is against the adjustable stop before the pump bottoms out internally.

1. Raise the seat up and gently and slowly move one of the control levers forward and feel if there is some resistance on the lever before the control lever hits the stop. If you sense the pump linkage rod is stopping forward motion before the control lever comes against the stop, then do the following:
 - a. Loosen the jam nut for that adjustable stop.
 - b. Turn stop (hex socket set screw) out until control lever is stopped by the set screw slightly before the pump linkage rod bottoms out.
 - c. When adjustment is correct, tighten jam nut.
2. Repeat step 1 for the other control lever.

Adjust Lever Stops to Drive Straight

NOTE: Variables such as oil temperature, pump efficiency, motor efficiency, tire pressure, etc., may effect the consistency to drive straight while pressing the control levers against the stops.

Refer to Figure 3-3:

1. Determine which drive tire is rotating too fast when both control levers are against the stops.
2. Stop the mower and loosen the jam nut on the side which is rotating too fast. Back the stop (set screw) out to stop the control lever sooner.
3. Tighten the jam nut on the stop and test again.
4. Repeat this procedure until unit drives straight.

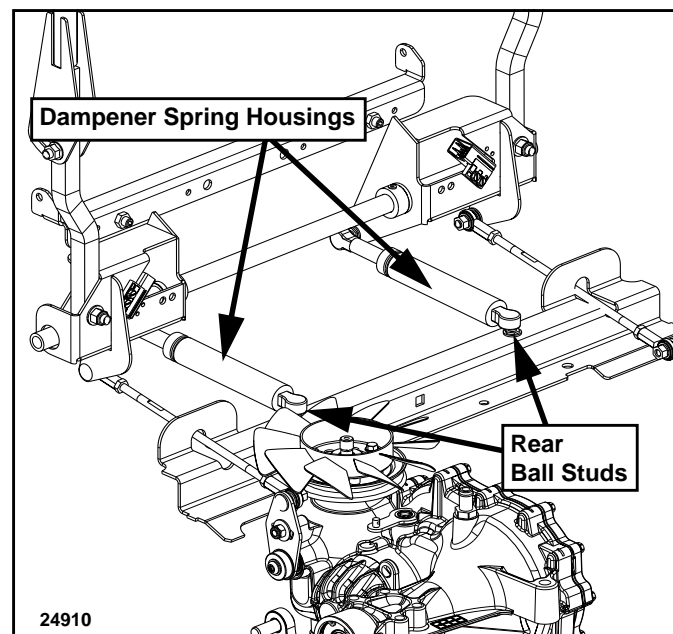
Steering Damper

Refer to Figure 3-4:

The steering dampeners, located under the seat, are incorporated into the unit to provide some resistance when control levers are moved forward or rearward and return levers to neutral when backing up.

Make sure steering dampeners are adjusted properly by moving control levers to the reverse position and releasing them. If control levers return to neutral position, they are working correctly. Adjust dampeners if they do not return to neutral. Adjusted as follows:

1. Place control lever in neutral position.
2. Adjust left dampener:
 - a. Loosen nut on the left rear ball stud.
 - b. Pull dampener spring housing, to the rear, past the point that the internal spring is engaged.
 - c. Release dampener spring housing and allow the internal spring to bring the housing back to neutral position.
 - d. Retighten left rear ball stud nut.



Steering Damper

Figure 3-4

3. Repeat step 2 to adjust the right dampener rod.
4. Check steering dampeners:
 - a. Move the control levers to reverse position and release. The control levers should return to neutral position.
 - b. Repeat steps 1 through 4 if control levers do not return to neutral position.

Section 3: Adjustments

Seat Adjustment

Refer to Figure 1-1 on page 8:

IMPORTANT: The arm rests on the Deluxe Seat must be pivoted up before hinging the seat platform forward. **Leaving the arm rests down while hinging the seat platform forward can cut the arm rest covers and void their warranty.**

The seat platform is slotted so the seat can be adjusted to the operator. Loosen the seat mounting hardware located under the seat and adjust the seat forward or rearwards to a length that is comfortable for the operator to raise and lower the mower deck with his right foot. Tighten the seat mounting hardware once the seat is adjusted.

Upper Control Lever Adjustments

The control levers may be adjusted while in the neutral position for height, reach and forward travel to fit the operator's steering comfort zone.

Height Adjustment

Refer to Figure 3-5:

1. Adjust control levers vertically by removing the bolts, flat washers, and locknuts that attach the upper control levers to the lower control levers.
2. Reposition upper control levers to a height that fits the operator's personal preference.
3. Reassemble bolts, flat washers, and locknuts in the same order they were removed without tightening them.

Reach Adjustment

Refer to Figure 3-5:

1. Pivot the upper control levers forward or backward to fit the operator's personal reach preference. If reach comfort zone can not be achieved, then try exchanging sides the levers are located:
 - a. Remove bolts, flat washers, and locknuts that attach the upper control levers to the lower control levers.
 - b. Switch right control lever with left control lever and reassemble bolts, flat washers, and locknuts in the same order they were removed without tightening them.
 - c. Pivot the upper control levers forward or backward to fit operator's personal reach preference.
2. Verify that the control levers align with each other when in the neutral position and tighten the locknuts to the correct torque.

Forward Travel Adjustment

Refer to Figure 3-5:

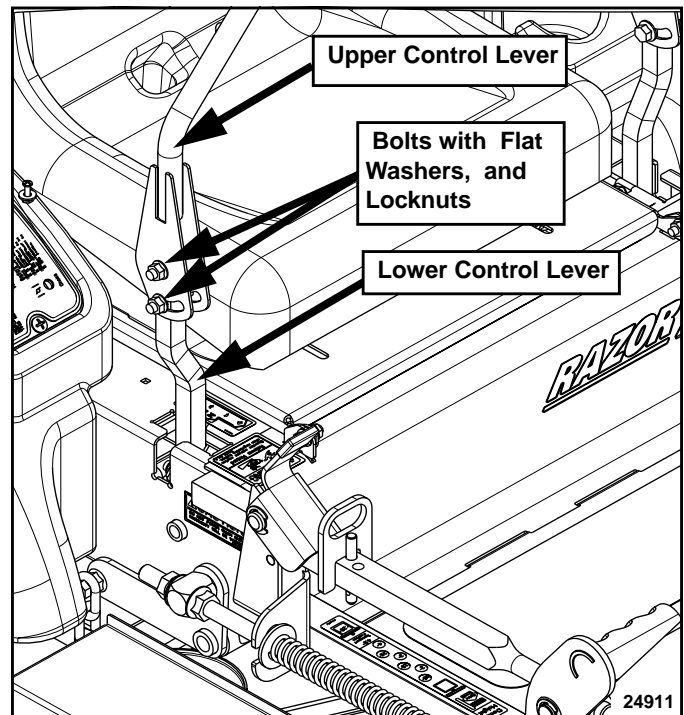
"Reach Adjustment" instructions are for adjusting the control levers to be equally aligned while in neutral. However, with this adjustment, the mower may want to steer slightly to the right or left when pushing the levers equally forward.

Make the following adjustments if you prefer to have the levers equally aligned while in forward travel position instead of while in neutral position:

1. While driving forward, make the necessary steering correction required to make the unit go straight and take careful notice of how the upper control levers are positioned. (The distance one lever is ahead of the other to make the mower travel straight.)
2. Stop the mower on a level surface, place the control levers in neutral, shut the power off and remove the switch key.
3. Either adjust the upper trailing lever forward by the distance it was trailing or adjust the upper leading lever back by the distance it was leading. Tighten the locknuts to correct torque.

Example:

If the right control lever is one inch ahead of the left control lever, stop the unit and either adjust the right upper control lever back one inch or adjust the left upper control lever forward one inch.



Control Lever Adjustment
Figure 3-5

Hydro-Drive Belt Adjustment

Refer to Figure 5-12 & Figure 5-13 on page 38:

Tension hydro-drive belt at the two tension idlers (#4).

4. Loosen idler bolts (#5) and slide idler pulleys (#4) forward until belt (#1) has 30-50 lbs of tension.
5. With drive belt properly tensioned, tighten idler bolts (#5) to the correct torque.

NOTE: Belt tension gauges are available at most auto parts stores.

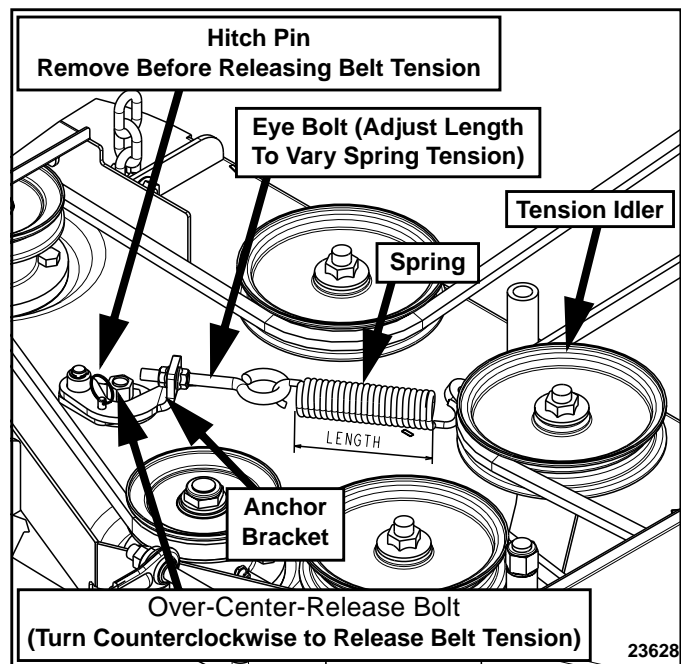
Section 3: Adjustments

Deck Drive Belt Adjustment

The spindle belt remains in constant tension by means of a spring tensioned idler. The spring tension should be adjusted so that the belt does not slip under normal operating load conditions and may require readjusting as the belt stretches and wears. The belt should be replaced if it is excessively worn or damaged.

Refer to Figure 3-6 and Figure 3-7:

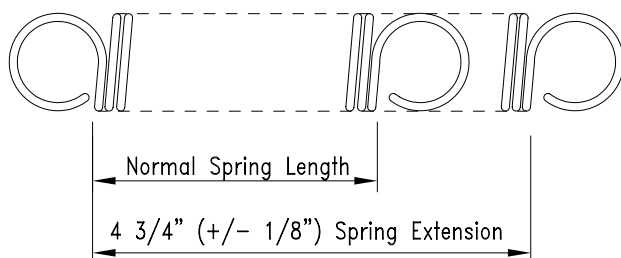
Check spring length to verify if belt is tensioned correctly. Installed spring length should be $4\frac{3}{4}$ " \pm $\frac{1}{8}$ ". Vary the spring length by adjusting the length of the eye bolt.



Drive Belt Adjustment
Figure 3-6

Excessive belt tension may lead to premature damage of belt and drive components and is also a safety hazard to the operator and bystanders. Not enough belt tension may also lead to premature belt damage due to excessive belt slippage.

IMPORTANT: Do not over tension the spring to compensate for a badly worn belt or pulley.



Deck Drive Belt Adjustment
Figure 3-7

Engine RPM Setting

The Razor is designed so that the engine will run at 3600 rpm static pump load only. At this speed the hydraulic pumps are running at their maximum rated speed.

Deck Leveling & Height Adjustment

The mower deck has three areas that may need to be checked and adjusted periodically. Before considering any mower deck leveling adjustments, check that the tire air pressure is within the specified range.



WARNING

Stop engine. Make sure blade engagement switch is in the down (OFF) position. Place control levers in park position before leaving machine.

Deck Level Adjustments

Leveling the deck must be done in the following order:

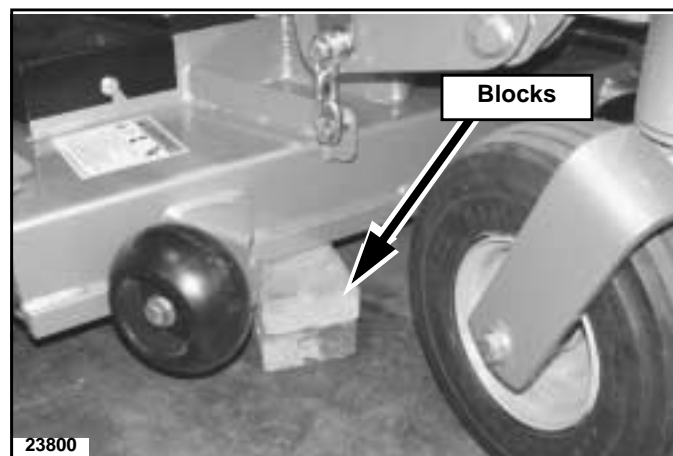
1. Check tire pressures to make certain they are properly inflated before leveling deck.

Tire Inflation Chart	
Tire	Inflation PSI
Drive Wheels	8-12
Caster Wheels	8-12

2. Park the unit on a flat surface.

Refer to Figure 3-8:

3. Raise deck fully up.
4. Position the blade cutting height at $3\frac{1}{4}$ " by placing 3" high deck support blocks under the deck edge in three locations:
 - a. Place two of the 3" support blocks under the deck front edge in-line with the far left and far right blade spindles.
 - b. Center the third 3" support block under the deck back edge.

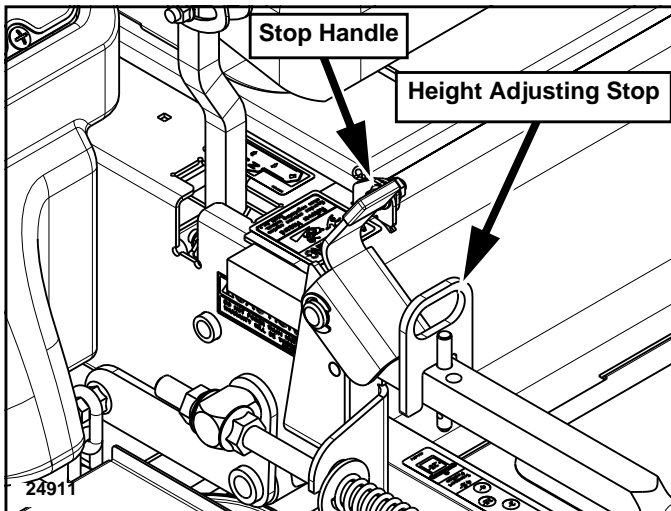


Blocking up Deck
Figure 3-8

Section 3: Adjustments

Refer to Figure 3-9:

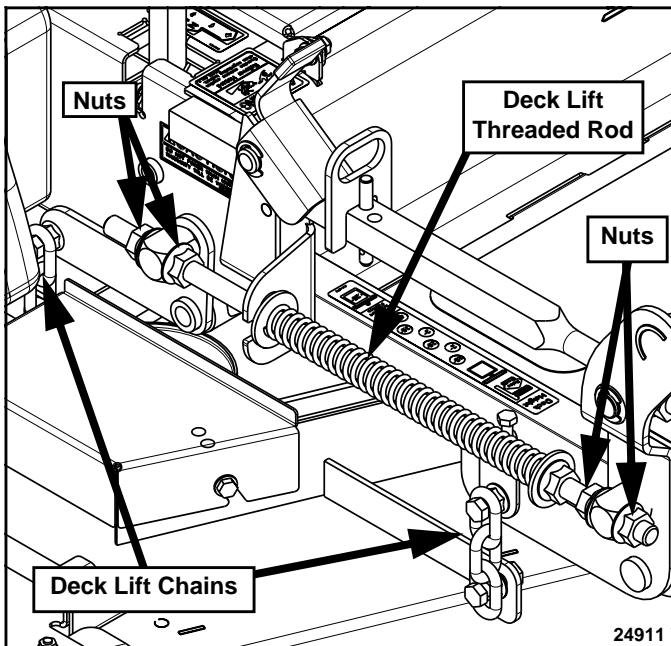
5. Set cutting height at 3 1/4" on the height indicator by placing the height adjusting stop in the 3" hole, and turning the height adjustment stop so that the flat side is against the stop handle.
6. Clamp the height adjusting stop against the stop handle. This will assure that the height will not move during the setting process. Otherwise, spring pressure from the deck lift springs will tend to pull the stop away from the handle.



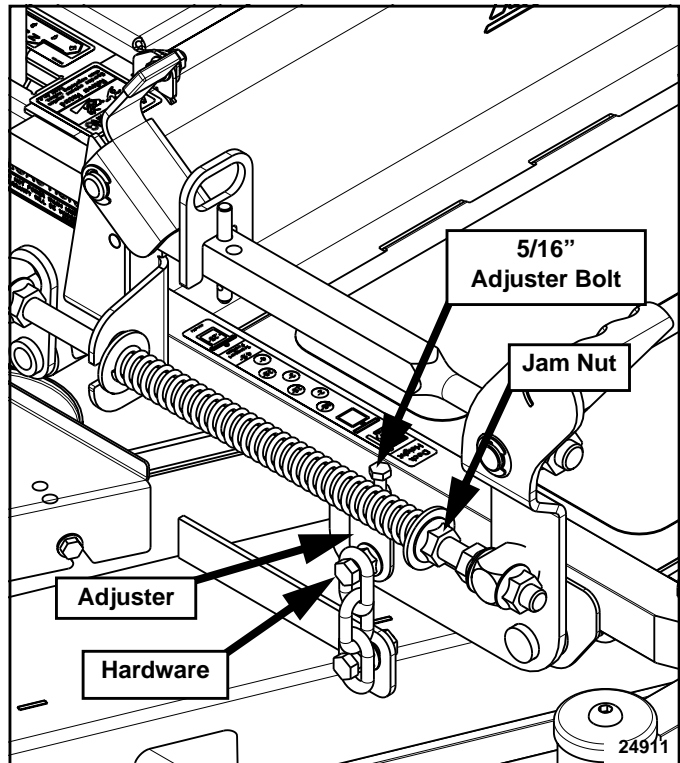
Cutting Height (Right Side Shown)
Figure 3-9

Refer to Figure 3-10 & Figure 3-11:

7. On both sides of the mower, loosen all nuts on the deck lift threaded rods and hardware on the adjuster until all deck lift chains are loose and the deck is sitting tightly on all three blocks.



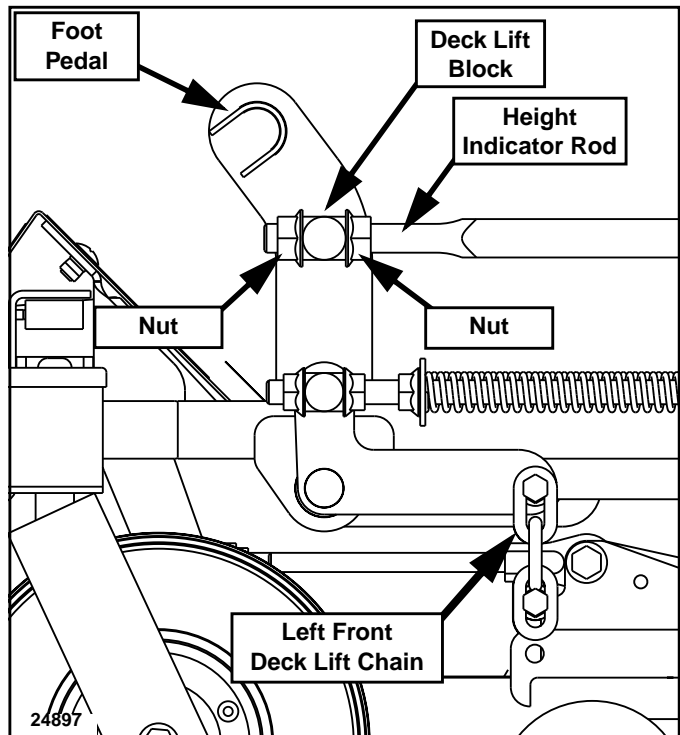
Deck Level Adjustment (Right Side Shown)
Figure 3-10



Deck Level Adjustment (Right Side Shown)
Figure 3-11

Refer to Figure 3-12:

8. Loosen the two nuts on the front of height indicator so that the foot pedal is free.

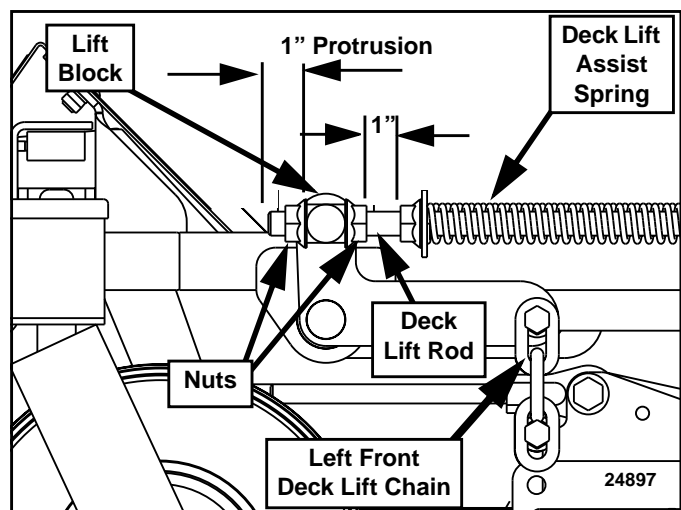


Deck Lift Rod Adjustment (Left Side of Foot Pedal Shown)
Figure 3-12

Section 3: Adjustments

Refer to Figure 3-13:

9. Start the leveling process on the left front side of the mower.
10. Set the amount of threads on the deck lift rod to protrude approximately 1" pass the lift block.
11. Jam both nuts against the lift block.
12. Push or pull on the deck lift foot pedal until the chain on the left front just becomes tight, making sure that the deck stays tight against the 3" block.



Deck Lift Rod Adjustment (Left Front Side Shown)
Figure 3-13

Refer to Figure 3-12:

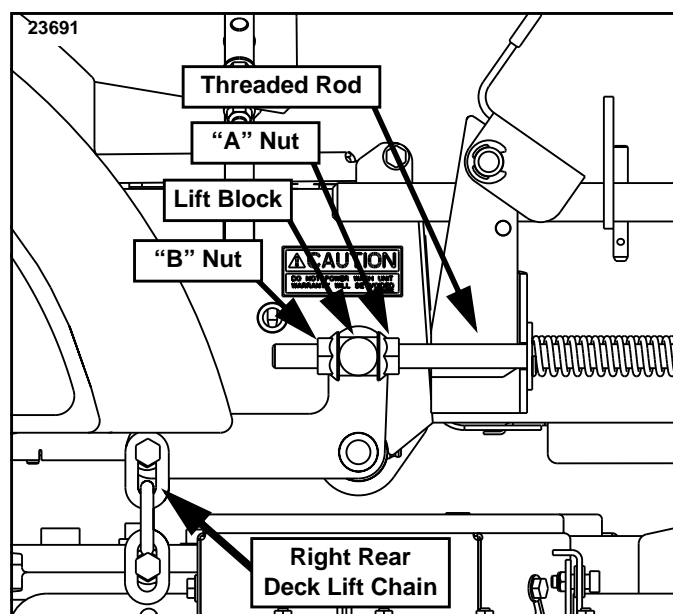
13. While keeping the left front chain tight, tighten the nuts against the deck lift block on the height indicator rod.

Refer to Figure 3-11 on page 24:

14. Go to the right front of the mower.
15. Loosen the 5/16" jam nut for the 5/16" adjuster bolt and then back the adjuster bolt out to allow the adjuster to move up and down freely.
16. Be sure that the adjuster is free to move up and down. Tighten the adjuster bolt until the chain just becomes tight. Make sure the deck stays tight against the 3" block.
17. Tighten the adjuster bolt jam nut to prevent the adjuster bolt from moving.
18. Tighten the hardware holding the chain and adjuster onto the deck lift arm.

Refer to Figure 3-14:

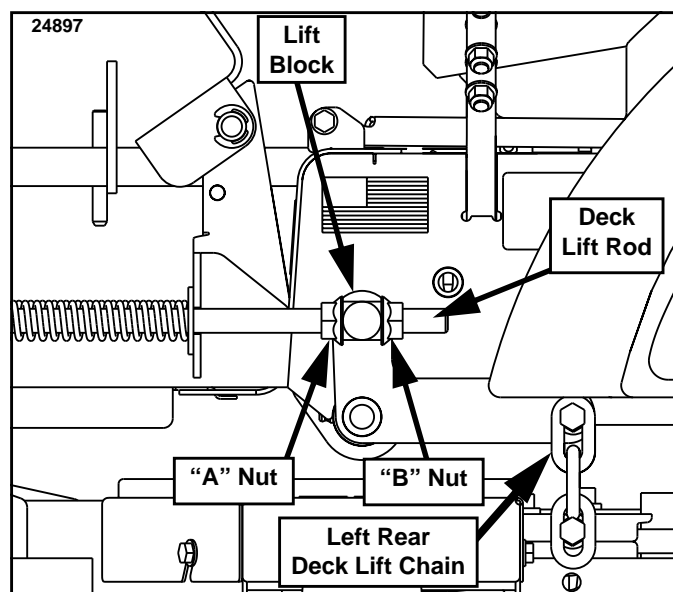
19. Go to the right rear of the mower.
20. Make sure that there is still slack in the back right lift chain. If not, loosen the two nuts ("A" & "B") on the lift block until there is slack in the right rear deck lift chain.
21. Tighten "B" nut until the chain just becomes tight, making sure that the deck stays tight against the 3" block.



Deck Lift Rod Adjustment (Right Back Side Shown)
Figure 3-14

Refer to Figure 3-15:

22. Go to the left rear of the mower.
23. Make sure that there is still slack in the chain. If not, loosen the two nuts ("A" & "B") on the lift block until there is slack in the left rear deck lift chain.
24. Tighten "B" nut until the chain just becomes tight, making sure that the deck stays tight against the 3" block.
25. Tighten both RH and LH "B" nuts one more full turn to raise rear of the deck to be approximately 1/4" higher than the front.
26. Tighten "A" nut on both sides to jam it and "B" nut tightly against the lift block.



Deck Lift Rod Adjustment (Left Rear Side Shown)
Figure 3-15

Section 3: Adjustments

Refer to Figure 3-13 on page 25:

27. Compress the deck lift assist springs so that there is 1" of space between the front nut and on the spring and the rear nut on the deck lift block. Typical both sides.
28. When completed, all chains will be tight, and deck cutting height will be set to the deck height indicator.

Deck Cutting Height Adjustment

Deck height is adjustable from 1 1/2" to 4 1/2" in 1/4" increments. The holes in the height adjusting bar are spaced at 1/2" intervals. By turning the height adjusting stop around, 1/4" increments can be attained due to the 1/4" plate that is part of the stop. Refer to Figure 3-9.

EXAMPLES:

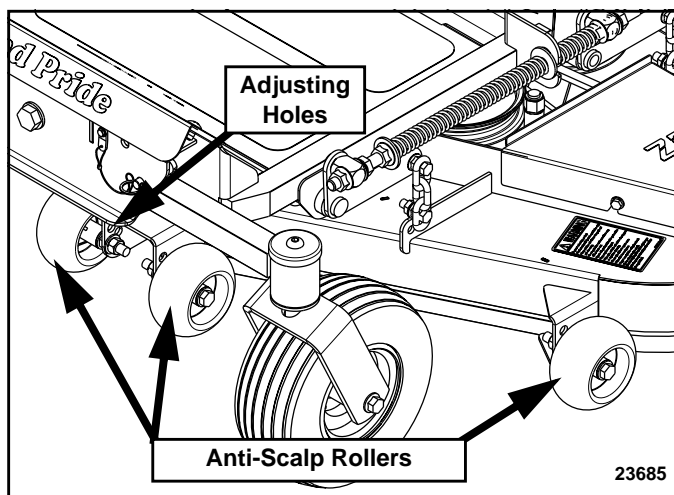
- When the height adjusting stop is placed in the 1 1/2" hole, with the 1/4" plate facing to the front of the unit, the cutting height is at 1 1/2". When the height adjusting stop is placed in the 1 1/2" hole, with the 1/4" plate on the operator's side of the hole, the cutting height is at 1 3/4".
- When the height adjusting stop is placed in one of the holes, with the 1/4" plate on the operator's side of the hole, the deck height will be set at one of the following: 1 3/4", 2 1/4", 2 3/4", 3 1/4", 3 3/4" or 4 1/4".
- When the height adjusting stop is placed in one of the holes, with the 1/4" plate facing to the front of the unit, the deck height will be set at one of the following: 1 1/2", 2", 2 1/2", 3", 3 1/2", or 4".

The notch located at the rear of the right height adjusting bar (4 1/2" height) is used when the deck is placed in the transport mode.

Anti-Scalp Rollers

Refer to Figure 3-16:

Anti-scalp rollers are standard on the Razor. These anti-scalp rollers are designed to minimize scalping when mowing on rough uneven terrain.



Anti-Scalp Roller Adjustment
Figure 3-16

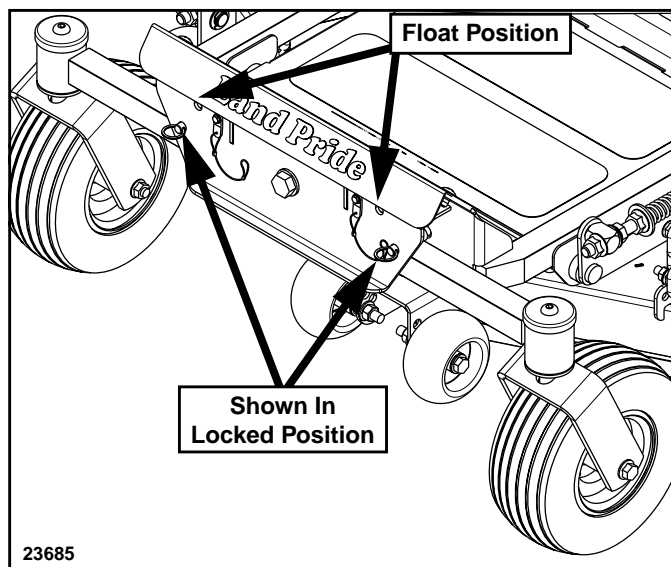
After setting the cutting height, adjust the front anti-scalp rollers so they extend below the deck but do not contact the ground. They should always be at least 1/4" to 3/4" below the deck. With the unit sitting on a flat level surface, the front wheel position can be adjusted up or down as needed from 3/4" to 1 3/4" below the blade surface. Move the front wheels up or down, in 1/2" increments, using the different axle mount holes in the roller mount bracket.

NOTE: When the anti-scalp rollers are installed, the minimum cutting height is 1 1/2" with the anti-scalp rollers set at 3/4".

Pivot Front Wheels

Refer to Figure 3-17:

The front wheels can be set to pivot about the center of the mower frame to allow the front wheels to float with the contour of the ground or locked to prevent the wheels from floating. Place the pins in the appropriate holes to obtain the desired functions.



Pivot Locking Pins
Figure 3-17

Section 4: Options & Accessories

Snow Plow

Refer to Figure 4-1:

Get more use from your Zero Turn Mower by attaching a front mount snow blade. Available in 60" and 72" widths, this blade easily attaches to Accu-Z and Razor Riding Mowers.



Snow Plow (ZT Mount Shown)
Figure 4-1

Light Kit

Refer to Figure 4-2:

Make seeing easier when completing a job after sundown and when parking your mower in a shed that is not well lit by attaching Land Pride's light kit.

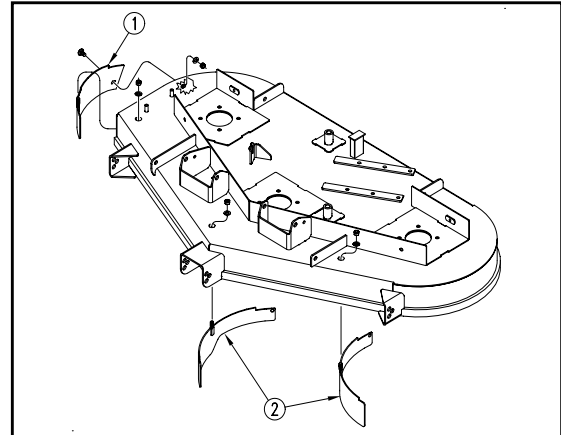


Light Kit
Figure 4-2

Mulching Kit

Refer to Figure 4-3:

Give your lawn that fresh cut grass look without those unsightly grass clippings showing by installing mulching blades and baffles (Items 1 & 2) on your mower deck.

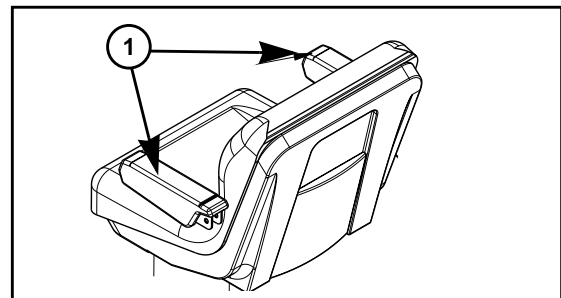


Mulching Baffles and Blades
Figure 4-3

Armrest for Standard Seat

Refer to Figure 4-3:

Add armrests (Item 1) to your standard seat to make your time mowing more comfortable.



Mulching Baffles and Blades
Figure 4-4

Section 4: Options & Accessories

Grass Catcher***Refer to Figure 4-5:***

Collect your fresh cut grass with a rear mount or side mount Grass Catcher. Grass collection systems are available through:
Humboldt Speciality Mfg. Co. Ph. 800-488-2009.

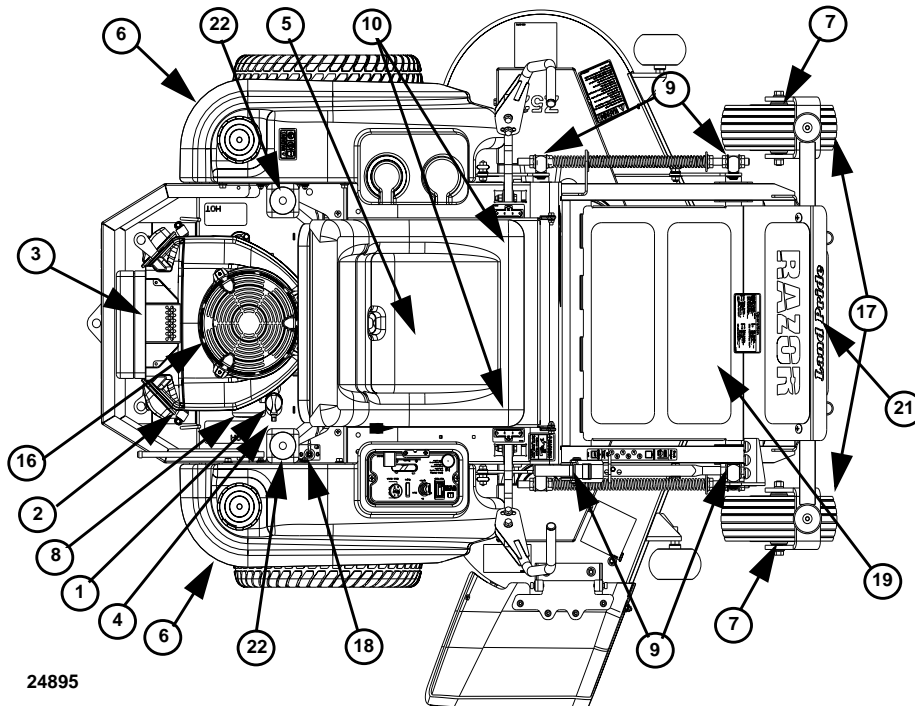


**Rear Mount Grass Catching System
Figure 4-5**



**Side Mount Grass Catching System
Figure 4-6**

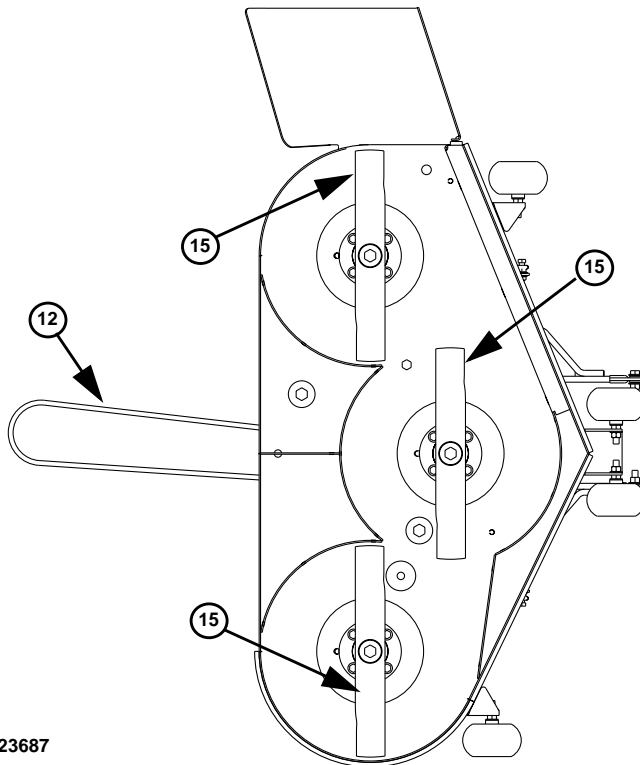
Maintenance Locations



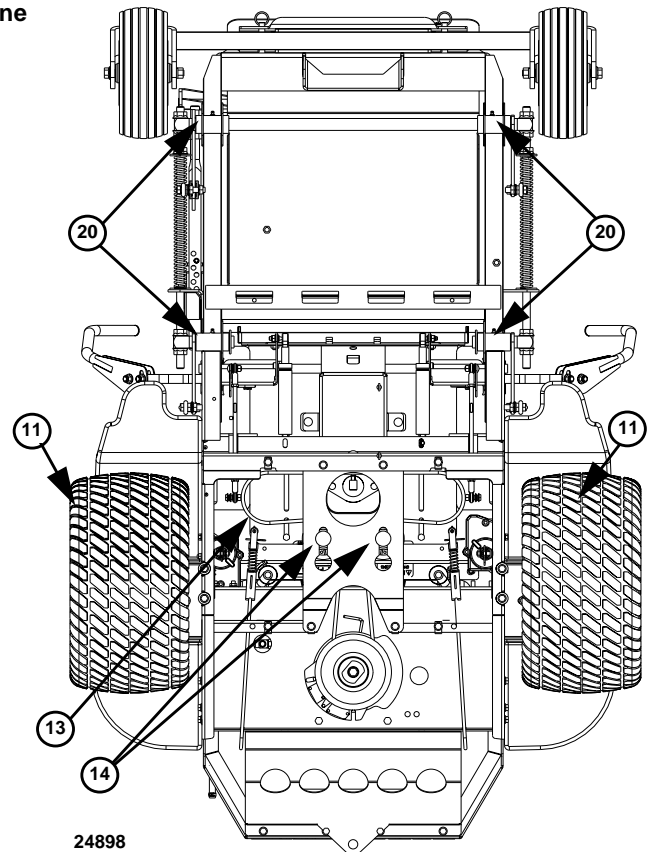
1. Engine Oil Fill & Dipstick
2. Fuel Filter
3. Engine Air Cleaner
4. Engine Oil Drain Plug
5. Battery (located under seat)
6. Fuel Tanks
7. Caster Wheel Bearing Zerk (2)
8. Engine Oil Filter
9. Deck Height Pivot Zerk (4)
10. Safety Interlock Switches (park) (2-located under seat)
11. Drive Tire
12. Deck Belt
13. Drive Belt
14. Drive Belt Take-up idlers and bolts
15. Blades
16. Engine Air Intake Screen
17. Front Caster Wheel Tires
18. Left/Right Fuel Tank Valve
19. Floor Panel
20. Deck Lift Pivot Zerk (s)
21. Front Axle Center Pivot Zerk (located under floor panel)
22. Expansion Tank for Hydraulic Oil

Top View (Honda Engine Shown)

Oil fill & dip stick (1), fuel filter (2), Oil filter (8) and fuel tank valve (17) are located on the left side for the Briggs & Stratton engine



Deck Bottom View



Bottom View
Drive motors removed for clarity

Figure 5-1

Section 5: Maintenance & Lubrication

Maintenance Schedule

Service at Intervals Indicated	Every 25 Hours	Every 50 Hours	Every 100 Hours	Every 200 Hours	Refer to Page
Clean mower, Deck & Engine Cooling System	Daily (After engine has cooled.)				31
Verify Safety Start Interlock System	Daily (Before each use)				13
Inspect Unit for loose hardware and damage	Daily (Before each use)				31
Visually Inspect Tires	Daily (Before each use)				32
Check Engine Oil Level	Daily (Before each use or every 4 hours, whichever comes first)				36
Clean Air Intake Screen	Daily (Before each use or every 4 hours, whichever comes first)				36
Check Fuel Level	Daily (Before each use)				35
Blades - Sharp & Securely Fastened	Daily (Before each use)				31 & 39
Discharge Chute - Securely In Place & In Lowest Position	Daily (Before each use)				
Service Air Cleaner (6)	X				36
Grease Blade Spindle Bearings	X				41
Change Engine Oil & Filter (1)		X			36
Clean Cylinder And Head Fins		X			36
Check Battery Connections		X			9 & 32
Check Tire Pressure With A Gauge		X			32
Clean Engine Exterior (3)		X			36
Tighten Lug Nuts On Wheels (2)		X			31
Grease Deck Lift Pivot Points (8)			X/M		42
Grease Front Axle Center Pivot (8)			X/M		42
Grease Caster Wheel Bearings			X		42
Check Pump And Deck Belt Tension (4)			X		37
Check Fuel and Hydraulic Lines (5)			X		35
Replace Air Cleaner Paper Element			X		36
Change Fuel Filter			X		36
Replace Spark Plugs				X	36
Change Transaxle oil & Filter (7)				X	33

NOTES:

1. Initial engine oil and oil filter change is after the first 5 hours of operation. Thereafter, change engine oil and oil filter every 50 hours of operation. Change every 25 hours when operating the engine under dusty or dirty conditions, heavy load, high temperatures and hot weather periods. Refer to Engine Owner's Manual.
2. Torque lug nuts initially and after first 2 hours of operation.
3. Remove cooling shrouds and clean cooling areas. Check oil cooler fins and clean as needed. Refer to Engine Owner's Manual.
4. Inspect pump and deck belt tensions every 6 months or 100 hours and replace if worn or cracking is noticed. Otherwise, replace every 200 hours or 2 years whichever comes first.
5. Check fuel line hoses, fuel valve and grommet for any cracks or leaks.
6. Clean air cleaner more often under dusty conditions or when airborne debris is present. Replace air cleaner, if very dirty.
7. Initial transaxle hydraulic oil and filter change is after the first 50 hours of operation. Thereafter, change transaxle hydraulic oil and filter ever 200 hours of operation.
8. X/M = Service per hours indicated in column or monthly (whichever comes first).

Section 5: Maintenance & Lubrication**Maintenance****WARNING**

Read and observe all safety warnings in this manual and in the engine service manual.

**WARNING**

Except when checking or changing components, always keep protective shields on for safety as well as for cleanliness.

**WARNING**

Keep your machine clean and remove any deposits of trash and clippings, which can cause engine fires and hydraulic overheating as well as excessive belt wear.

**WARNING**

DO NOT have engine running when servicing or making adjustments to the mower. Place control levers in the neutral position, disengage blade engagement, shut engine off and remove ignition switch key.

**DANGER**

Repairs or maintenance specifically requiring engine power should be performed by trained personnel only. Control levers should be set in park position. If the control levers are to be operated, the tires should be properly supported off the floor. Enclosed areas should be properly ventilated to prevent carbon monoxide poisoning.

**WARNING**

Before working on or under the deck, make certain the engine cannot be accidentally started. Shut engine off and remove ignition switch key for maximum safety. Repairs or maintenance requiring engine power should be performed by trained personnel only.

**DANGER**

Exercise caution when working under the deck as the mower blades are extremely sharp. Wearing gloves is advisable when working around or with the blades.

**WARNING**

When possible, clean under mower using a stick or similar instrument making sure that no part of the body, especially arms and hands are under mower.

IMPORTANT: The arm rests on the Deluxe Seat must be pivoted up before hinging the seat platform forward. **Leaving the arm rests down while hinging the seat platform forward can cut the arm rest covers and void their warranty.**

Regular maintenance is the best prevention for costly downtime or expensive, premature repair. The following pages contain suggested maintenance information and schedules which the operator should follow on a routine basis.

Check initially and periodically for loose bolts and pins. Torque loose bolts per the "Torque Values Chart" on page 48. Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

Clear away heavy build-up of grease, oil and dirt, especially around the engine and under the seat platform; minute dust particles are abrasive to close-tolerance engine and hydraulic assemblies.

Inspect mower daily for grass clippings, tangled wire and string. The underside of the mower deck will collect a build-up of grass clippings and dirt, especially when grass is wet or has high moisture content. This build-up will harden, restricting blade and air movement and will usually produce a poorer quality of cutting. Therefore, debris should be routinely removed from under the deck.

To do this it will be necessary to raise and block the deck in the full up position and scrape the build-up from underneath.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Land Pride dealer when assistance is needed.

Torque Values**WARNING**

Particular attention must be given to tightening the drive wheel lug nuts, blade spindle bolts and electric clutch bolt. Failure to correctly torque these items may result in the loss of a wheel, blade or burnt clutch which can result in serious damage and/or personal injury.

It is recommended that the lug nuts, spindle bolts and electric clutch bolt be checked after the first 2 hours of initial operation and after removal for repair or replacement. Thereafter, they should be checked every 50 hours of operation.

NOTE: Refer to "Torque Values Chart" and "Additional Torque Values" on page 48 for correct torque values.

Section 5: Maintenance & Lubrication

Tires

Use only tires recommended by Land Pride. Solid fill tires are not to be used on the Razor mower.

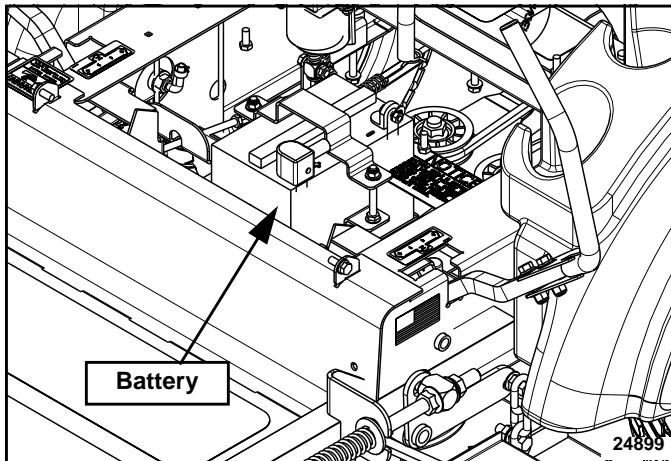
It is important for your safety and the safety of others that the tires have correct air pressure. Check air pressure in all four tires before each use. Visually inspect tires for loss of air throughout each day of operation. See Tire Inflation Chart below for correct tire pressure.

Tire Inflation Chart	
Tire	Inflation PSI
Drive Wheels	8-12
Caster Wheels	8-12

Electrical System

Refer to Figure 5-2:

The battery is located under the seat. The electrical system is a 12 volt, negative ground. Recommended battery size is a garden mower BCI group U1R with 225 or better cold cranking AMPs (CCA). A maintenance-free battery is recommended. Otherwise, follow battery manufacturer's maintenance, safety, storing and charging specifications.



Battery
Figure 5-2

WARNING

Acid can cause serious injury to skin and eyes. Avoid skin contact with battery acid and always wear eye protection when checking the battery. Flush area with clean water and call a physician immediately. Acid will also damage clothing.

WARNING

Do not allow an open flame near the battery when charging. Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an explosion if exposed to a flame.

WARNING

Incorrect battery cable connections can damage mower's electrical system and cause battery cables to spark. Sparks around a battery can result in a battery gas explosion and personal injury.

- Always **disconnect** negative (black) battery cable before disconnecting positive (red) cable.
- Always **reconnect** positive (red) battery cable to the positive (+) post before reconnecting negative (black) cable to the negative (-) post.

WARNING

Keep battery terminals from touching any metal mower parts when removing or installing the battery. Do not allow metal tools to short between the battery terminals and metal mower parts. Shorts caused by battery terminals or metal tools touching metal mower components can cause sparks. Sparks can cause a battery gas explosion which will result in personal injury.

WARNING

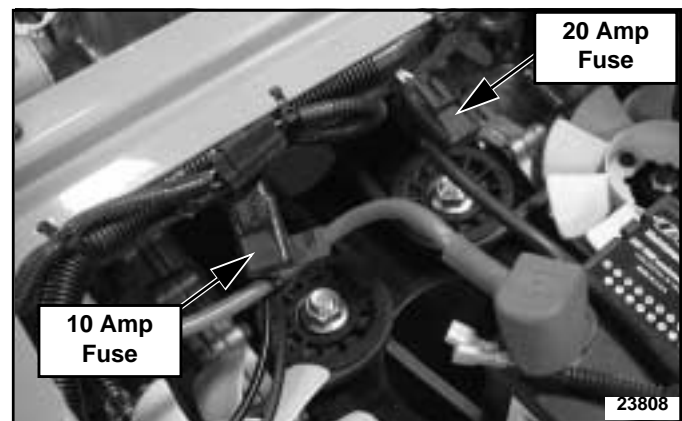
Do not overfill battery. Electrolyte may overflow and damage paint, wiring or structure. When cleaning the battery, use soap and water. Be careful not to get soap and water into the battery. Use soda mixed in water to clean corrosion off the terminals.

Common circuit problems are usually caused by electrical shorts, corroded or dirty terminals, loose connections, defective wire insulation or broken wires. Switches, solenoids and ignition components may also fail, causing a shorted or open circuit.

Refer to Figure 5-3:

The electrical system is protected by fuses located along the wire harness beneath the seat next to the engine. The fuses are:

- Main - 20 Amp, blade type
- Clutch - 10 Amp, blade type

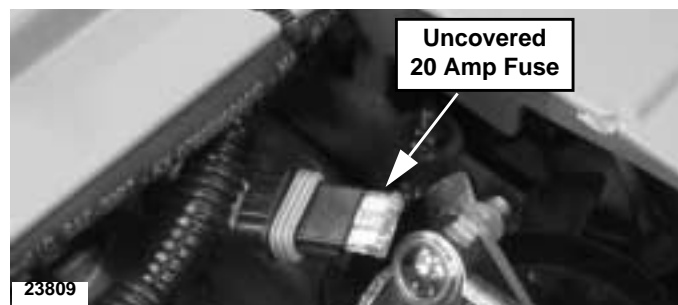


Wiring Harness Fuses
Figure 5-3

Section 5: Maintenance & Lubrication

Refer to Figure 5-4:

Remove the cover over the fuse to access the fuse.



20amp Fuse W/Cover Removed
Figure 5-4

Before attempting any diagnosis of electrical system, use a test light or voltmeter to check battery voltage. If battery voltage is satisfactory, check cleanliness and tightness of terminals and ground connections. A general understanding of electrical servicing and use of basic test equipment is necessary for troubleshooting and repair.

Major overhaul or repair of starting motor or alternator should be performed by trained technicians only.

Hydrostatic Drive System

Refer to Figure 5-5:



WARNING

Always wear adequate eye protection when servicing the hydraulic system.

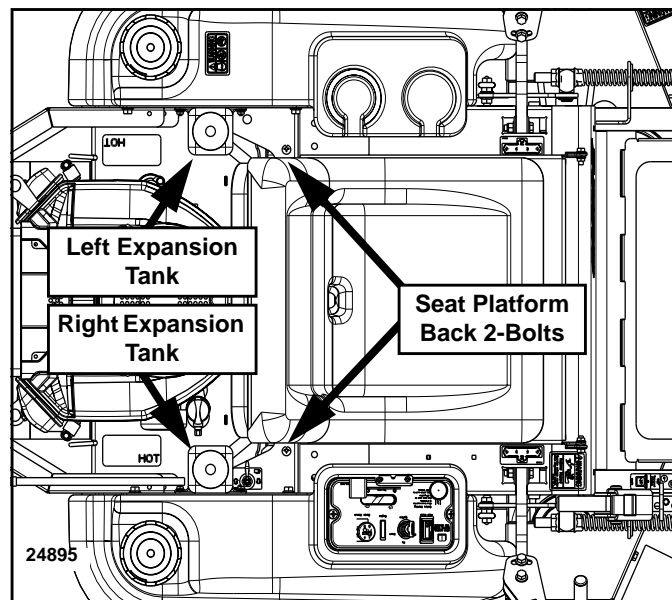
IMPORTANT: Do not use a high pressure washer on or around the hydraulic transaxles. Water intrusion will result and void the warranty.

The Razor is equipped with Hydro-Gear ZT-2800™ (Integrated Zero-Turn Transaxle) units. These units are self contained and maintenance free except for changing oil and filters. Access the ZT-2800™ units by removing two bolts at the back of the seat platform and then pivot the platform up and forward.

NOTE: If the seat is equipped with the optional arm rest kit, make certain to place the control arms in the park position and pivot the arm rests upward before tilting the seat platform.

IMPORTANT: Repairs to an ZT-2800™ unit should be performed by trained technicians only.

NOTE: The ZT-2800™ units are equipped with bypass valves. For more information refer to "Moving Mower with Stalled Engine" on page 15.



Access to ZT-2800™ Units
Figure 5-5

Transaxle Oil and Filter Change

The mower has two independent hydrostatic transaxle systems. Each system will require separate oil and oil filter changes. It is best to change oil soon after using the mower while dirt particles are still suspended in the oil. See page 43 for transaxle oil specifications.

Initially, change oil and oil filters after the first 25 to 50 hours of operation. Thereafter, change oil and filters every 200 hours or every year whichever comes first. Two filters are required with each oil change. They may be purchased from your nearest Land Pride dealer. Ask for filter Part No. 831-060C.

IMPORTANT: The transaxles must be purged after every oil change. See "Transaxle Purging Procedures" on page 35.

IMPORTANT: Clean debris from around the oil filter (#5), top port plug (#8) and expansion tank cap (#11) before draining any oil.

1. Park unit on a flat level surface. Stop engine and remove ignition key. Make sure blade engagement switch is **in the down (OFF) position**. Spread control levers fully apart.

Refer to Figure 5-6 & Figure 5-7 on page 34:

2. Begin on the left side by placing an oil pan (12" or more in diameter with approximately 8 qt. capacity) beneath the transaxle oil filter.
3. Remove screws (#7) and filter guard (#6).
4. Remove hair pin cotter (#4), flat washer (#3) and clevis pin (#1).

Section 5: Maintenance & Lubrication

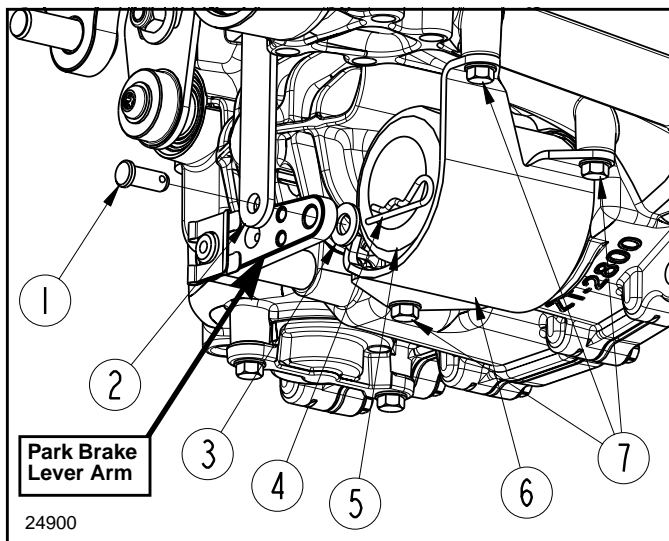
5. Clean transaxle exterior and expansion tank of any debris. A degreaser may be needed.

NOTE: Drain old oil filters of all free flowing oil prior to disposal. Place used oil and oil filter in appropriate containers and deliver to an approved collection facility.

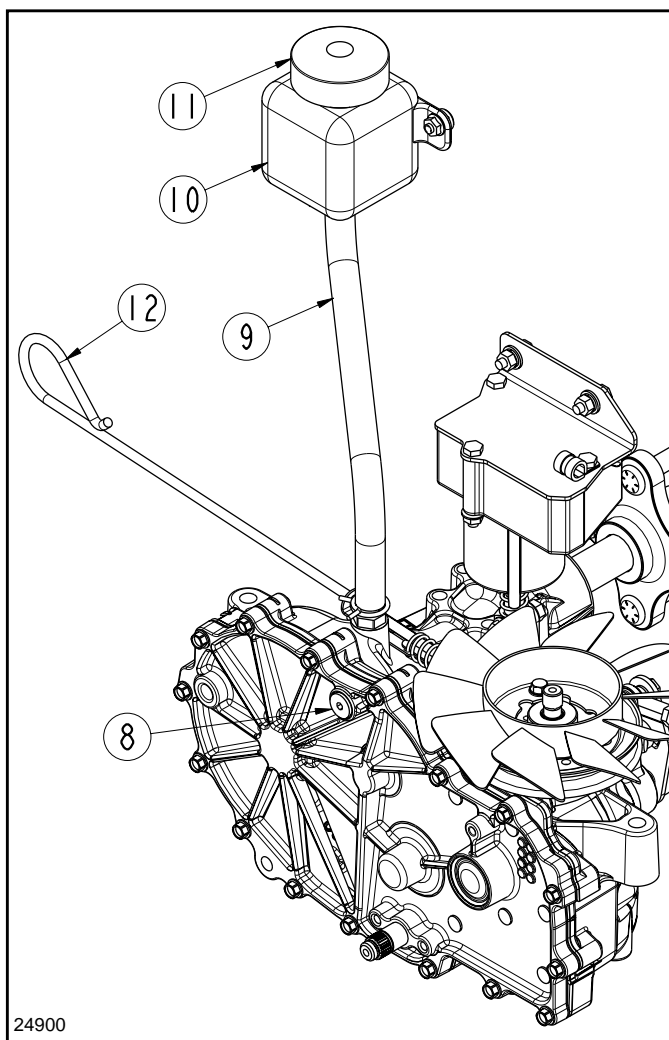
6. Move actuator arm (#2) out of the way and unscrew the used oil filter (#5). Be sure to properly dispose the filter.
7. Remove expansion tank cover (#11) to facilitate drainage.
8. Allow oil to drain until it has slowed to a slow drip. Be sure to properly dispose the oil.
9. After oil has completely drained, install a new oil filter per instructions below:
 - a. With a clean rag, clean the mounting surface that the filter seats against.
 - b. Apply a thin coat of oil on the rubber seal surface of the new filter (#5).
 - c. Screw filter on until it makes contact with the surface it seats against.
 - d. Tighten filter an additional 3/4 to 1 full turn more.
 - e. Install filter guard (#6) with three 1/4" screws (#7). Torque screws to 65 in-lbs.
 - f. Reattach actuator arm (#2) with clevis pin (#1), flat washer (#3) and hair pin cotter (#4) as shown.
10. Remove top port plug (#8). This will allow the transaxles to vent during oil fill.
11. Fill transaxle with oil by adding oil to the expansion tank (#10) until oil appears at the top port opening (approximately 2 qts.). See page 43 for transaxle oil specifications.
12. Install top port plug (#8). Tighten plug to 180 in-lbs. of torque.
13. Continue to add oil to the expansion tank until oil reaches the full cold line (approximately 1/2" up from the bottom of the tank).

NOTE: The fill tube (#9) should be hand squeezed several times to burp out air and to drain oil from the expansion tank into the tube. Be careful not to damage the tube while squeezing it. Use a protective cloth wrapped around the tube if using a tool to squeeze such as a pair of pliers.

14. Reinstall expansion tank cap (#11) by hand. Be careful to not overtighten.
15. Wipe off all excess oil. A degreaser may be needed to remove excess oil.
16. Repeat steps 1 thru 15 for the right side.



Left Transaxle (View of Oil Filter)
Figure 5-6



Left Transaxle (Inboard View)
Figure 5-7

Section 5: Maintenance & Lubrication

Transaxle Purging Procedures

It is critical that air is purged from the hydrostatic drive system to keep it efficient. This is because compression and expansion rate of air is higher than that of oil.

This purge procedure should be implemented any time the hydrostatic system has been opened to facilitate maintenance or after the oil has been changed.

Symptoms of a hydrostatic system that has not been purged may be:

1. Noisy operation.
2. Lack of power after short term operation.
3. High operation temperature and excessive expansion of oil.

Refer to Figure 5-7 on page 34:

Before purging the system, make sure fill tubes (#9) are full of oil and expansion tanks (#10) are filled to the cold full line. Squeeze all air from the fill tubes and add oil if the expansion tanks are low. See page 43 for transaxle oil specifications.

The following procedures are best performed with the mower drive wheels off the ground. Then repeated under normal operating conditions. If this is not possible, then the procedure should be performed in an open area free of any objects or bystanders.

1. Open both transaxle bypass valves by pulling out on the bypass valve rods (#12) and lifting them into the slot to lock them in position. Bypass valve rods are located at the rear of the engine platform.
2. Start the engine and place both control levers in neutral. Slowly move the control levers completely forward and reverse 5 to 6 times.
3. Close both bypass valves by lifting the bypass valve rods out of their slots and pushing them forward.
4. With the engine running and the control levers in neutral, slowly move the levers forward and reverse 5 to 6 times.
5. Stop engine and check fill tubes (#9) and expansion tanks (#10). Squeeze any air out that might be in the expansion tubes and add oil to the expansion tanks if low.

IMPORTANT: The transaxle is considered purged when it operates at normal noise levels and moves smoothly forward and reverse at normal speeds.

6. It may be necessary to repeat Steps 1 to 5 until all air is completely purged from the system and the transaxle operates at normal noise levels and travels at normal speeds.

Fuel System



DANGER

- Replacement of fuel system parts (i.e. gas caps, hoses, fuel tanks, fuel filters, etc.) must be the same as original parts. Fire and/or explosion can occur if not followed.
- Observe safe fuel handling precautions.
- Do not smoke while handling fuel.
- Do not fill tank with engine running or while engine is hot. Allow the engine to cool before filling. Spilling fuel over the engine, muffler, or a hot object may result in a fire or explosion.
- Allow engine to cool before servicing the fuel system.
- Do not fill fuel tanks to the top if mowing on hilly terrain or in hot weather. Gas can rise up to the fuel cap vent hole and seep out.
- Clean up any gasoline spills immediately.
- Keep fuel away from open flame or spark.
- Store the mower away from open flame or spark if there is fuel in the tank.
- Use extra caution when handling gasoline and other fuels. They are flammable and vapors are explosive. A fire or explosion from gasoline can burn you and others and can damage property.
- Refuel outdoors preferably, or in well ventilated areas.
- Never attempt to start engine when there is a strong odor of gasoline fumes present. Locate and correct cause.
- Store gasoline in an approved container and keep it out of children's reach.
- Never buy more than a 30 day supply of gasoline.
- Do not fill gasoline containers inside a vehicle, on a truck, or on a trailer. Interior carpets and plastic truck bed liners insulate the container and slow loss of static charge.
- When practical, remove equipment from the truck or trailer and refuel the equipment with its wheels on the ground. If this is not possible, then refuel the equipment on the truck or trailer using a portable container and not a gasoline dispenser nozzle. If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.
- Gasoline is a poison harmful or fatal if swallowed.
- Long-term exposure to vapors can cause serious injury and illness.
- Avoid prolonged breathing of vapors.
- Keep face away from nozzle and gas tank opening.
- Keep gas away from eyes and skin.

The fuel tanks are located in the mower's fenders. Total capacity for the fuel tanks is 12 U.S. gallon.

When filling the fuel tanks, disengage blade engagement switch, place control levers in park position and stop engine. Allow engine to cool before filling the tanks.

Section 5: Maintenance & Lubrication

Clean dirt from around fuel tank cap, remove cap and begin filling. Do not fill fuel tanks to the top if mowing on hilly terrain or in hot weather. Gas can rise up to the fuel cap vent hole and seep out. When finished, screw cap back on securely and wipe up any spilled gasoline. Use regular unleaded gasoline with an octane rating of 87 or higher.

IMPORTANT: Never use methanol, gasoline containing more than 10% ethanol because the fuel system could be damaged. Do not mix oil with gasoline.

Using a fuel stabilizer/conditioner in the fuel can provide benefits such as:

1. Keeps gasoline fresh during storage of 90 days or less. For longer storage, drain the fuel tanks.
2. Cleans the engine during operation.
3. Eliminates gum-like varnish build-up in the fuel system.

IMPORTANT: Do not use fuel additives containing methanol or ethanol.

Add the correct amount of gas stabilizer/conditioner to the gas. Follow the gas stabilizer/conditioner manufacturer's directions for best results.

Fuel Filter

Refer to Figure 5-8:

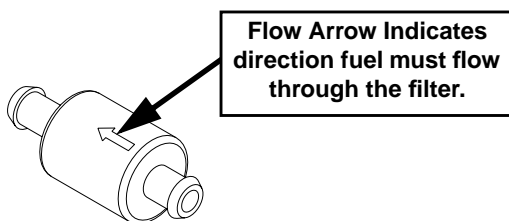


DANGER

Close fuel shut-off valve before replacing fuel filter. Otherwise, fuel can leak out creating a fire and/or explosion hazard.

The fuel filter is installed in the fuel line between the Left/Right Fuel Tank Valve and engine fuel pump. Location of fuel filter will vary depending on which engine your mower is equipped with. See engine owner's manuals for exact location of fuel filter and instructions on removal and installation.

Replace filter annually or after every 100 hours of operation, whichever occurs first. Be sure to install the fuel filter with Flow Arrow pointing towards the engine side of the fuel line. Always check fuel line hoses for any cracks or leaks. Replace as needed.

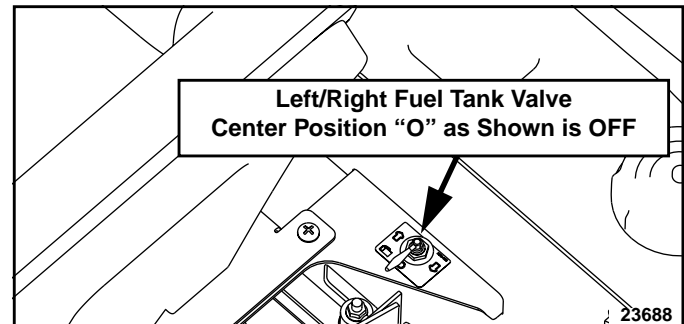


23803

Fuel Filter
Figure 5-8

Draining The Fuel Tank

1. Park the unit on a flat surface. Make sure blade engagement switch is **in the down (OFF) position**. Place control levers in park. Stop engine and remove ignition key.
2. Disconnect negative battery cable.
3. Trace the fuel line from the tank to the tee under the Left/Right Fuel Tank Valve (Refer to Figure 5-9. Remove fuel line hose clamp at the tee and remove the fuel line from the tee.
4. Place the end of the fuel line into a gas can or a drain pan to drain the fuel tank.
5. When the fuel tank is drained, re-route the fuel line to the Left/Right Fuel Tank Valve and reattach with previously removed clamp.



Fuel Shut-Off Valve (Honda Engine Location Shown)
Figure 5-9

General Engine Maintenance

Detailed instructions and recommendations for break-in and regular maintenance are specified in the engine operator's manual. Please refer to this manual for engine servicing, lubricating oil levels with quality and viscosity recommendations, bolt torques, etc. The engine warranty is backed by the engine manufacturer. Special attention should be paid to applicable data which is not duplicated here.

Engine Air Filter

Perform engine air filter maintenance per the engine operator's manual.

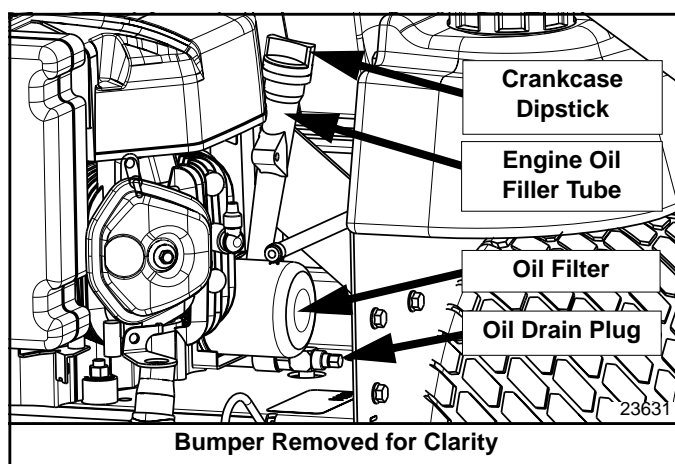
Engine Oil and Oil Filter

See "Engine Specifications" on page 43 for oil type and engine capacity.

Check engine oil daily and after every 4 hours of operation. Crankcase dipstick and engine oil fill tube are located at the rear of the machine. Mower must be sitting level when checking oil. Refer to engine manual and maintenance schedule for oil recommendation and capacities.

Change the engine oil and filter after the first 5 hours of operation and per the engine manufacturer's recommendations after that. It is recommended oil be changed more frequently if the mower is being operated in extremely dirty conditions.

Section 5: Maintenance & Lubrication



Oil Filter, Drain & Filler Tube (Honda Engine Shown)
Figure 5-10

Refer to Figure 5-10 on page 37:

The oil fill and dipstick are located on the right hand side for the Honda engine and left hand side for the Briggs & Stratton engine. The oil drain and oil filter are located on the right hand side for both engines. Drain oil by unscrewing the oil drain plug as needed to allow oil to flow freely. Do not remove drain plug. Drain plug will offer resistance once it is unscrewed as far as it should be.

IMPORTANT: Make certain engine is level and you are inserting the dipstick correctly when checking oil. An oil overfill can cause engine problems.

Oil Check, Honda Engine

1. Unscrew oil filler cap/dipstick and wipe it clean.
2. Insert dipstick fully in **without screwing it in** and removing it again to check oil level.
3. If oil level on the dipstick is near or below the lower limit mark, then add recommended oil until it reaches the full mark. **Do not overfill.**
4. Reinstall oil filler cap/dipstick by screwing it in firmly.

Oil Check, Briggs & Stratton Engine

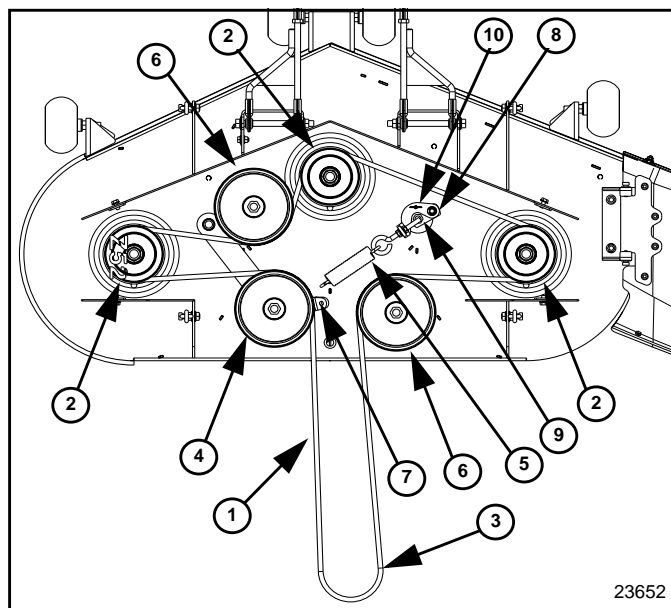
1. Unscrew oil filler cap/dipstick and wipe it clean.
2. Insert dipstick fully in **by screwing it in** and removing it again to check oil level.
3. If oil level on the dipstick is near or below the lower limit mark, then add recommended oil until it reaches the full mark. **Do not overfill.**
4. Reinstall oil filler cap/dipstick by screwing it in firmly.

Belt Replacement

Replace belts that show signs of severe cuts, tears, excessive weather checking, cracking and/or burns. Slight raveling of belt covering does not indicate belt damage. Trim ravelings with a sharp knife.

Inspect belt pulley grooves and flanges for wear. A new belt, or one in good condition, should never run against the bottom of the groove. Replace pulley when this is the case, otherwise belt will lose power and slip excessively.

Never pry a belt onto a pulley as this will cut or damage the fibers of the belt covering. Keep oil and grease away from belts, and never use belt dressings. Any of these will destroy the belt composition in a very short time.



- | | |
|------------------------------|--|
| 1. Deck drive belt | 6. Deck belt idler |
| 2. Deck blade spindle pulley | 7. Idler arm |
| 3. Electric clutch pulley | 8. Over-center tension |
| 4. Deck belt tension idler | 9. Over-center release
Use 3/4" socket wrench |
| 5. Tension idler spring | 10. 1/4" x 1/2" Hitch Pin |

Deck Drive Belt Layout
Figure 5-11

Deck Belt Replacement Instructions

Refer to Figure 5-11:

1. Park mower on a flat surface. Stop engine and remove ignition key. Make sure blade engagement switch is **in the down (OFF) position**. Spread control levers fully apart. Disconnect negative battery cable.
2. Place deck height in the lowest position.
3. Remove deck belt covers and floor panel.
4. Pull hitch pin (#11).
5. Release deck belt tension by putting a 3/4" socket wrench on the over-center-release bolt (#9) and turning counterclockwise. This will relieve the tension on the deck belt idler spring.
6. Pull tension idler (#4) to the left of the machine to provide maximum belt clearance.
7. Remove existing deck belt (#1) first from idler pulley (#4), then idler pulley (#6), electric clutch pulley (#3) and then from the remaining pulleys.
8. Install new deck drive belt (#1) in the reverse order the belt was removed. See Figure 5-11 for correct belt route.

Section 5: Maintenance & Lubrication

9. Re-tension idler pulley (#4) by turning the over-center-release bolt (#9) clockwise. Tension belt per **"Deck Drive Belt Adjustment"** section on page 23.
10. Re-install hitch pin (#10).
11. Re-install deck belt covers.
12. Re-attach the negative battery cable and floor panel.

Hydro-Drive Belt Replacement Instructions

Refer to **Figure 5-12** & **Figure 5-13**:

1. Park unit on a flat surface. Stop engine and remove ignition key. Make sure blade engagement switch is **in the down (OFF) position**. Spread control levers fully apart.

WARNING

Make sure engine and muffler are completely cooled before working on and around the hydro-drive belt. Server burns to the body could result if engine and muffler have not cooled.

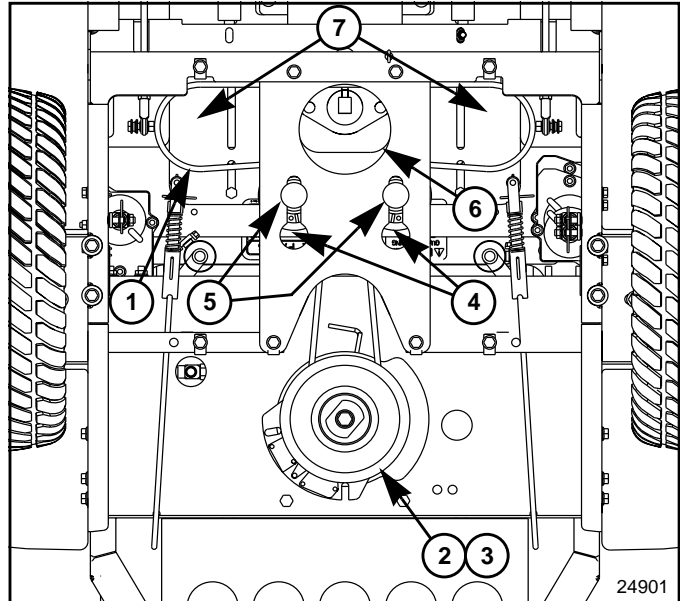
2. Disconnect negative battery cable.
3. Place deck height in the lowest position.

NOTE: Do not remove deck belt from the mower. Only remove it from the electric clutch pulley.

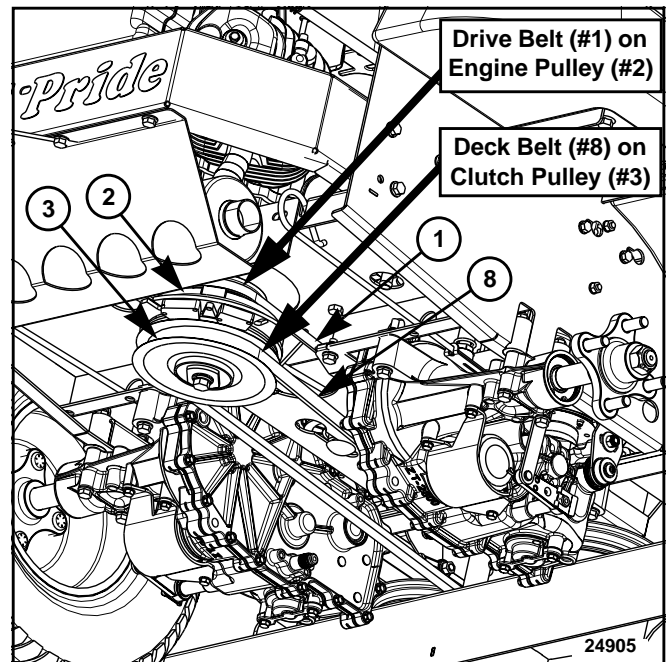
4. Remove deck drive belt (#8) from electric clutch pulley (#3) as outlined in steps 3 to 7 on page 37 under **"Deck Belt Replacement Instructions"**.
5. Release hydro-drive belt tension by loosening one of the two idler pulley bolts (#5) and moving that idler pulley (#4) completely back.
6. Slide hydro-drive belt off of idler pulleys (#4) and transaxle pulleys (#7).
7. Remove hydro-drive belt from the engine pulley (#2) and then from the mower.
8. Install new hydro-drive belt by first sliding the belt onto both transaxles pulleys (#7) and then onto the engine pulley (#2).
9. Position the belt over the idler pulleys (#4) and slide the loosened idler pulley forward to take out any slack in the belt.
10. Check to make sure the hydro-drive belt (#1) is routed properly on all five pulleys.

NOTE: Belt tension can be checked with a Belt Tension Gauge available at most auto parts stores.

11. Tighten the loose idler pulley (#4) until belt (#1) has 30-50 lbs of tension. With drive belt properly tensioned, tighten idler bolts (#5) to the correct torque.
12. Re-tension deck drive belt per following steps 8 to 11 on page 37 under **"Deck Belt Replacement Instructions"**.
13. Re-attach the negative battery cable and floor panel.



Hydro-Drive Belt Viewed from the Bottom
(Transaxles with pulleys removed for clarity)
Figure 5-12



Hydro-Drive Belt Removal
Figure 5-13

Reference Figure 5-12 & Figure 5-13

- | | |
|---------------------------------|--|
| 1. Hydro-drive belt | 6. Access hole to idler pulleys |
| 2. Engine pulley | 7. Pump pulleys location (Not shown for clarity) |
| 3. Electric clutch pulley | 8. Deck drive belt |
| 4. Pump idler pulleys | |
| 5. Mounting bolts, idler pulley | |

Section 5: Maintenance & Lubrication

Mower Blade Maintenance

Blade Inspection

Check the mower blades daily, they are the key to power efficiency and well groomed turf. Keep them sharp, a dull blade will tear rather than cut the grass, leaving a brown ragged top on the grass within a few hours. A dull blade also requires more power from the engine.

Replace any blade which is bent, cracked or broken.



WARNING

DO NOT try to straighten a blade that is bent. Never weld a broken or cracked blade. ALWAYS replace with a new Land Pride blade to assure safety.



DANGER

Never work with blades while engine is running or blade is engaged. Always place blade engagement switch in the down (Off) position, place both control levers in park position and turn engine off. Block up mower when you must work under it. Wear gloves when handling blades. Always check for blade damage if mower strikes rock, branch or other foreign object during mowing!

IMPORTANT: Blade mounting bolts have right hand threads. Turn blade bolts counterclockwise to loosen and clockwise to tighten.

1. Remove blades by grasping the blade end with a rag or thick padded glove while loosening the blade mounting bolt.
2. With a 11/16" wrench, remove the 1/2" center blade bolt and Washer from the bottom of the blade.

IMPORTANT: Replace blades with Land Pride blades only.

IMPORTANT: Always install blades with cutting edge facing direction of blade spindle rotation and with wing tips pointing up towards bottom of deck.

3. Reinstall blade, blade washer and bolt. Care should be taken when installing the blade bolt to not get it cross threaded.
4. Tighten blade bolt to the correct torque. See "Additional Torque Values" on page 48 for correct torque value.

Blade Sharpening

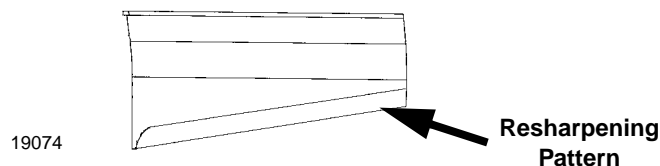


CAUTION

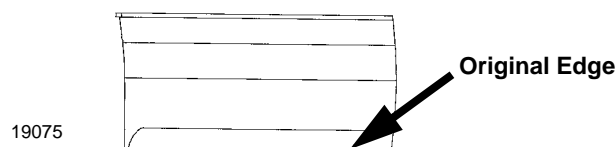
ALWAYS wear eye protection and gloves when sharpening a blade.

NOTE: Care should be taken in order not to remove any more material than necessary to sharpen blade.

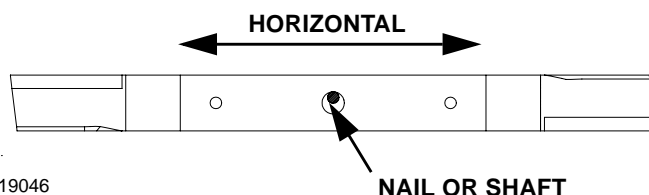
1. If the blade cutting edge is dull or nicked, it should be replaced or sharpened.
2. Clean blade, blade washer and mounting surface of all debris before replacing or sharpening.
3. Sharpen blades on a grinder following pattern as shown in Figure 5-14. Grind cutting edge at the same bevel (27 1/2 degrees) as the original. Sharpen only the top of the cutting edge to maintain sharpness. Touch-up sharpening can be done with a file.



Do not sharpen to original pattern (below). It is easier to get a straight cutting edge following the sharpening pattern shown above.



**Blade Reshaping
Figure 5-14**



**Blade Balancing
Figure 5-15**

4. Balance of a blade is generally maintained by removing an equal amount of material from each end of the blade when sharpening. Check blade balance by positioning the blade horizontally on a nail or shaft through the center hole. See Figure 5-15. If either end of the blade rotates downward, grind (remove) metal on that end until the blade will balance. The blade is properly balanced when neither end drops. If blade is out of balance, true it up before reinstalling.

Refer to Figure 5-16 and Figure 5-17:

Lay the blade on a flat surface and check for distortion. Replace any distorted blade.

Do not re-use spindle bolts which have stripped, worn or undercut threads. Refer to "Torque Values Chart" on page 48 when replacing hardware for proper torque.



WARNING

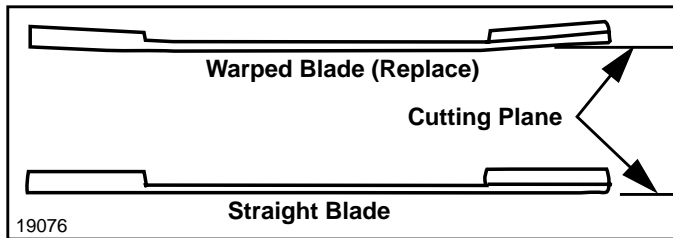
When mounting blades, rotate them after installation to ensure blade tips do not touch each other or sides of the mower.

Section 5: Maintenance & Lubrication

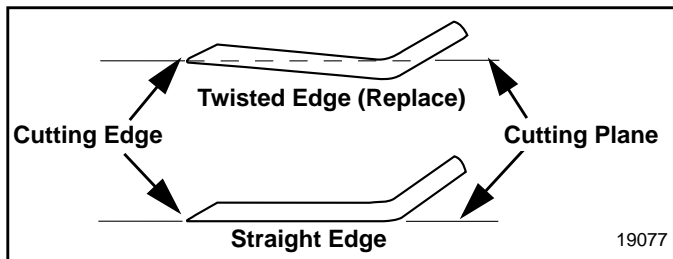


WARNING

Failure to correctly torque the bolt may result in the loss of the blade which can cause serious injury.



Comparison of Warped and Straight Blades
Figure 5-16



End View of Blades, Twisted & Straight Blades
Figure 5-17

Storage

Take the following steps when storing the mower at the end of the season and when the unit will not be used for long periods to ensure readiness for the next mowing season.

IMPORTANT: Do not use a high pressure washer on or around the ZT-2800™ units. Water intrusion will result and void the transaxle warranty.

1. Remove all grass, dirt, trash and grease that may have accumulated on the mower and moving parts.
2. Scrape off compacted dirt, trash and grass clippings from the deck underside. A coating of oil may also be applied to the deck underside to minimize oxidation.
3. Clean and touch up all scrapes with Land Pride spray paint.
4. Check blades and blade bolts for wear and replace if necessary.
5. Service air cleaner according to engine manufacture's recommendations.
6. Check thoroughly for any worn or damaged parts that need replacing and order them from your nearest Land Pride Dealer.
7. Thoroughly lubricate machine, according to lubrication instructions.
8. Block mower up so weight is off tires.

NOTE: Do not deflate tires.

9. Protect battery from freezing temperatures. Disconnect the negative ground wire from the battery to reduce the chances of a slow electrical drain. Occasionally recharging battery during storage will extend battery life.
10. Prepare engine for storage as described below.
11. Store mower in a clean, dry place.

Preparation of Engine for Storage

Prepare engine for long term storage as follows:

1. Run engine for a minimum of 15 minutes.
2. Drain oil from crankcase while engine is still warm.
3. Refill with fresh oil of proper viscosity.
4. Drain fuel tank and run engine until it stops from lack of fuel. Gasoline evaporates if left in carburetor for long periods, forming gum and varnish deposits in carburetor. These deposits will cause engine flooding and loss of power.
5. Replace fuel filter if not done in previous 100 hours.
6. Remove spark plugs and pour a tablespoon of engine oil into each spark plug hole. Install plugs, but do not reconnect plug leads.
7. Crank engine with starter at least a dozen revolutions to distribute oil over cylinder walls and valve mechanism.
8. Clean exterior surface of engine. Spread a light film of oil over any exposed metal surfaces of engine that are subject to corrosion.
9. Clean dirt and chaff from cylinders and fins, blower housing and muffler.
10. Check oil filler cap and fuel tank cap to make certain they are securely in place.

New Season Preparation





Before starting the mower following post season storage, the following servicing is required:

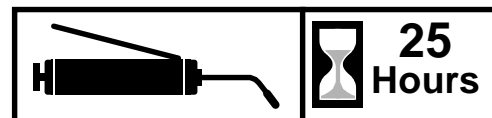
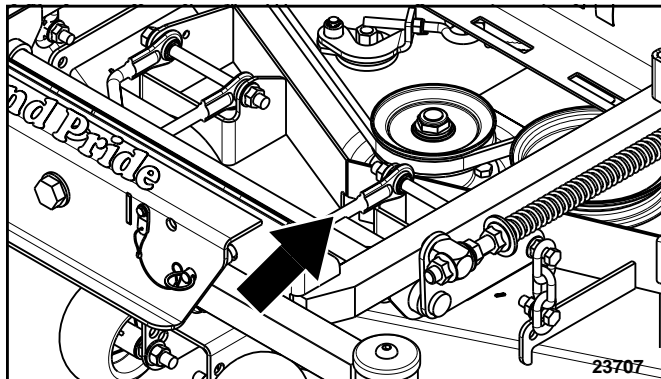
IMPORTANT: Do not use a high pressure washer on or around the ZT-2800™ units. Water intrusion will result and void the transaxle warranty.

1. Clean mower, removing trash and dirt accumulation.
2. Check engine oil level.
3. Tighten any bolts that have loosened and make sure all hair pins, cotter pins and clevis pins are in place.
4. Install all safety shields and review safety precautions listed in this manual.
5. Check and inflate tires to 8-12 psi.
6. Fill fuel tank with fresh gasoline.
7. Reconnect spark plug leads to spark plug.
8. Run machine at half speed for 5 minutes, checking operation of the control levers. Stop engine and check for oil leaks and loose fittings.

Section 5: Maintenance & Lubrication

Lubrication Points

Lubrication Legend	 Multi-purpose spray lube	 Multi-purpose grease lube	 Multi-purpose oil lube	 Intervals in hours at which lubrication is required
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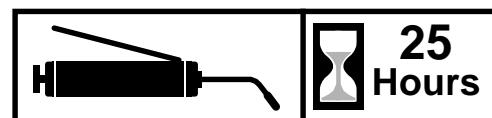
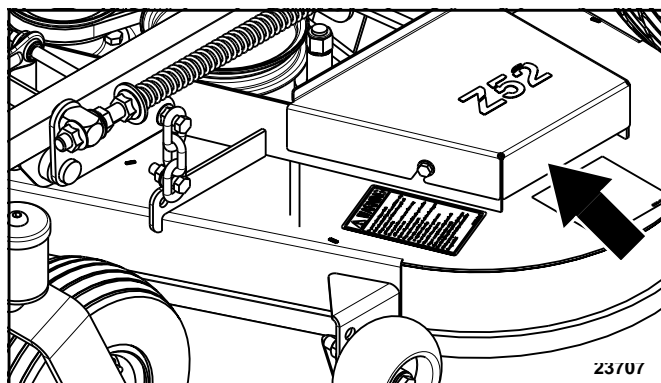
**Center Blade Spindle**

Through opening between front shields.

1 Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required

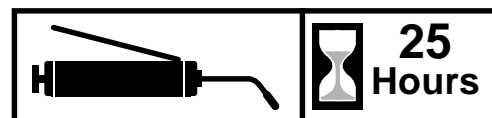
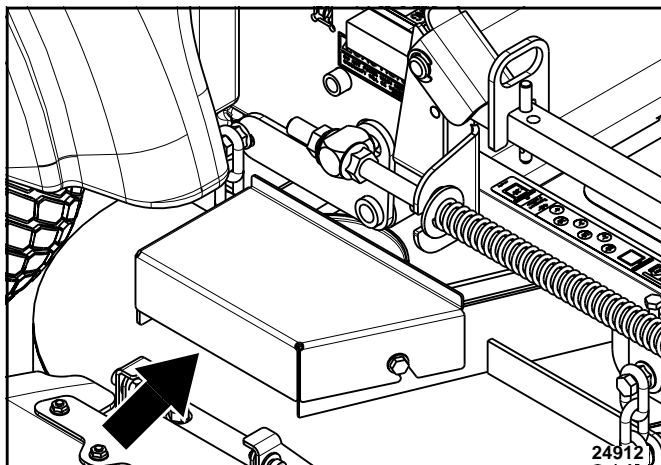
**Left Blade Spindle**

Under lower edge of pulley cover.

1 Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required

**Right Blade Spindle**

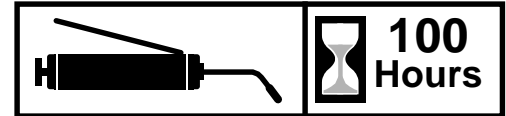
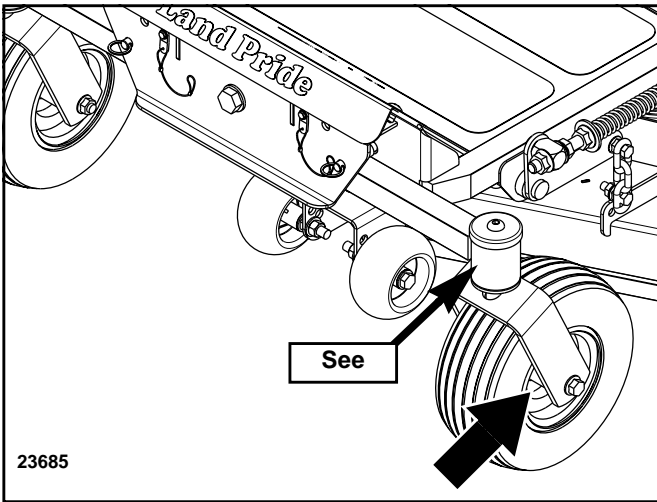
Under lower edge of pulley cover.

1 Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required

Section 5: Maintenance & Lubrication



Caster Wheel Bearing Zerk

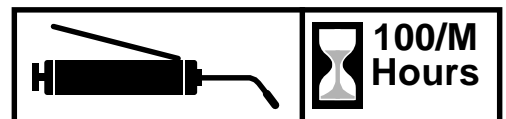
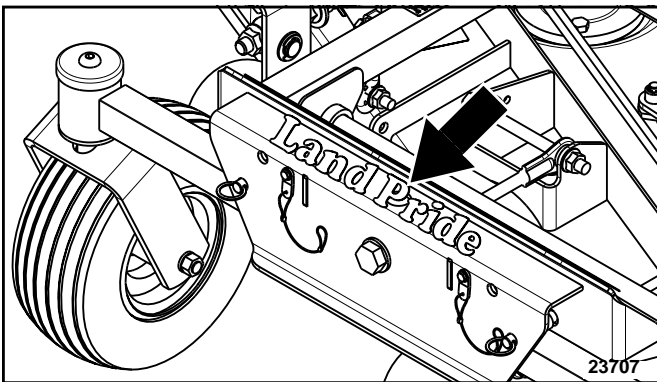
Located on hub of caster wheel

2 Zerks (One on each caster wheel)

Type of Lubrication: Multi-purpose Grease

Quantity = As required

NOTE: Caster spindles have sealed bearings and require no servicing.



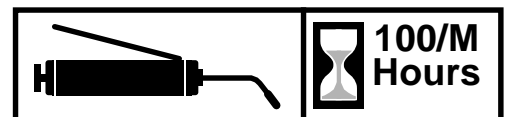
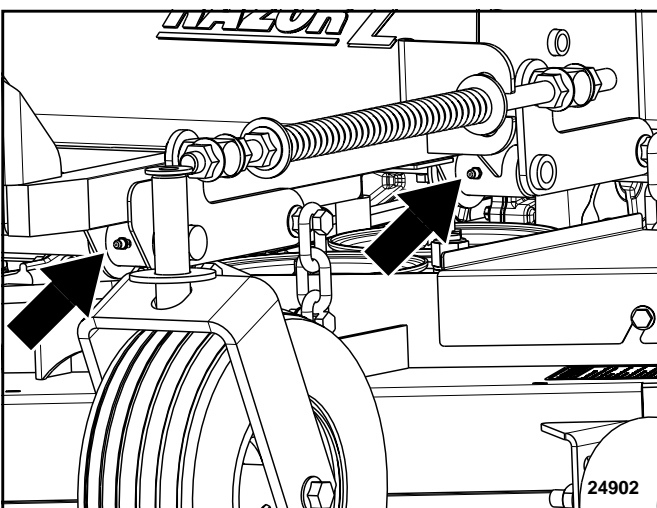
Front Axle Center Pivot

Remove floor panel above deck to access

1 Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required



Deck Lift Pivot Points

4 Zerks (2 left side and 2 right side)

Type of Lubrication: Multi-purpose Grease

Quantity = As required



Z44 & Z52 Accu-Z Razor® (S/N 526171+)

Engine Specifications						
Engine Type	Briggs & Stratton			Honda		
Mower Model No.	Z44	Z52		Z44	Z52	
Horsepower	22	22	26	18	18	20
Engine Model Type	44K777-0116-E1	44K777-0116-E1	44P777-0116-E1	GXV610K1-QAF	GXV610K1-QAF	GXV620K1-QAF
No of Cylinders	2	2	2	2	2	2
Displacement	44.2 cu. in. (725 cc)	44.2 cu. in. (725 cc)	44.2 cu. in. (725 cc)	37.5 cu. in. (614cc)	37.5 cu. in. (614cc)	37.5 cu. in. (614cc)
Compression Ratio	N/A	N/A	N/A	8.3:1	8.3:1	8.3:1
Max Torque	N/A	N/A	N/A	32.5 FT. LBS @ 2500 RPM	32.5 FT. LBS @ 2500 RPM	32.5 FT. LBS @ 2500 RPM
Oil Type	SAE 10W-30			SAE 10W-30		
Oil Capacity w/ Filter	2 US quarts	2 US quarts	2 US quarts	2.3 US quarts	2.3 US quarts	2.3 US quarts
Oil Filter	831-053C			831-038C		
Air Filter, Paper	831-054C			831-036C		
Air Filter, Pre Cleaner	None			831-037C		
Fuel Filter	Replaceable, Automotive-Type Land Pride Part No. 831-035C					
Cooling	Air cooled, Fly-wheel fan					

Hydrostatic Transmission Specifications		
Mower Model No'	Z44	Z52
Traction Drive Type	Dual Hydrostatic Transmission	
Motor/Pumps	Two variable displacement, axial piston type.	
Motor/Pump Drive	V-belt drive from engine crankshaft	
Oil Type	SAE 20W-50 Engine oil	
Oil Capacity - Per Side	Total = 78 to 80 fl. oz. to fill transaxle and expansion tank to cold fill line (75.7 fl. oz. to fill transaxle to top port plug + 4.3 fl.oz. to cold fill line in expansion tank)	
Hydraulic Oil Filter No.	831-060C	

General Specifications		
Mower Model No'	Z44	Z52
Width of Cut	44"	52"
Trim Capacity (left side)	0.1"	5"
Overall width	49.7"	56.9"
Tire-to-tire width:	43.8"	44.5"
Height	39"	
Overall Length without hitch plate	67.9" w/Honda Engine 68.7" w/Briggs & Stratton Engine	
Weight	720 lbs. w/Honda Engine 706 lbs. w/Briggs & Stratton Engine	735 lbs. w/Honda Engine 721 lbs. w/Briggs & Stratton Engine
Drive Tires	18 x 8.5 - 8, turf tread	18 x 9.5 - 8, turf tread
Front Tires	11 x 4.00 - 5, rib tire	
Ignition	Electronic	

Specifications to continue on next page.

Section 5: Specifications & Capacities

General Specifications		
Mower Model No'	Z44	Z52
Starter	12-volt (.8 KW), solenoid shift positive engagement. w/Honda Engine 12-volt (.8 KW), industrial Starter w/Briggs & Stratton Engine	
Charging System	12-volt, 20 amp w/Honda Engine 12-volt, 16 amp w/Briggs & Stratton Engine	
Governor	Mechanical	
Fuel	Unleaded gasoline with octane rating of 87 or higher	
Fuel Capacities	12 US GAL	
Ground Speed	Forward: 0-7.5 MPH Reverse: 0-5.5 MPH	
Steering Type	Twin lever steering provides independent control of each drive wheel.	
Twin Lever Steering Controls	Speed, forward, reverse, brake, turns and park.	
Steering Turning Radius	True zero degree. Turns with counter-rotating independent drive wheels	
Brake Service	Hydrostatic dynamic braking	
Park Brakes	Spring applied electric release pawl over cog wheel.	
Mower Drive	Single V-belt with electric clutch	
Safety Features	Operator presence system connected to deck and drive clutches.	
Seat	Molded-vinyl seat. Bolt loosening required for forward and reverse adjustments. Optional armrests kit for standard molded-vinyl seat. Optional deluxe cushion seat with arm rests.	
Mainframe Construction	1 1/2" square solid steel.	
Drive Motor Mount	1/8" welded steel	
Front Caster Wheels	Mounted with roller bearings on each wheel.	
Front Caster Forks	3/8" steel.	
Deck Thickness	11 Gauge decks with reinforcements welded into spindle mount areas	
Reinforced Deck Front	11 GA. x 3 1/2" x 1 1/2" Box-Section	
Deck Trim Edges	Solid 1" x 3/8" steel bars for reinforced impact area	
Deck Housing Depth	4 1/8" deep, (room for high-capacity mowing)	
Deck Lift	Foot-operated deck height adjustment. Pin for setting height and transport position.	
Hand Operated Controls	Ignition switch, throttle lever, control levers, blade engagement switch, choke lever and Left/Right Fuel Tank Valve.	
Indicators	Engine warning light and hour meter	
Cup Holder	Two cup holders molded into the left side fuel tank. Accommodates nearly any cup size including Big Gulp.	
Cutting Heights	Foot-operated deck height adjustment. Pin for setting height, transport position. Height adjustment in 1/4" increments from 1 1/2" to 4 1/2"	
Mowing Blades	Heavy-duty, heat-treated, high-lift steel blades	
	.20" x 2 1/2" x 15.81"	.20 x 2 1/2" x 17.81"
Blade Tip Speed	16,811 FPM	18,937 FPM
Blade Drive	V-belt drive to all three spindles. Spring tension idler pulleys.	
Spindles	Machine ductile housing, 1" diameter high carbon steel shafts and greasable ball bearings.	
Flotation	Free-floating mower deck using three blades with center blade to the front. Mower deck is suspended at the four corners on spring-assisted chains. Includes 4 anti-scalp wheels to improve flotation in rolling and uneven terrain.	

Section 6: Features and Benefits

Z44 & Z52 Accu-Z Razor® (S/N 526171+)







Features	Benefits
44" or 52" Cutting width	Sized and priced right for residential owners.
Ground speed	Forward 0-7.5 mph and Reverse 0-5.5 mph for high mowing productivity
Mid-mount deck design	Mid-mount design puts the deck closer to the operator's line of sight for a more efficient and precise operation.
Compact size	Enhances mowing maneuverability, as well as fitting on trailers or storing more efficiently.
Drive tire stance	Narrow width (44: 44", 52: 45") allows for tight turns in corners, yet gives a very stable platform for the operator.
Steering levers designed for more adjustment and comfort	Steering levers are designed with more adjustments to fit more comfortably to operators of all sizes. Also new comfort grip handles are standard equipment.
Stamped reinforcing ring added to deck construction	Makes a stronger deck and reduces unwanted flex.
Deck Construction	Single welded frame design. 11 Gauge with 1" x 3/8" reinforcements.
Floating deck design	Deck has chain suspension which offers excellent flotation over uneven terrain.
Deck height adjustment	Height is changed by a spring-loaded foot operated lever and pin. Easier than hand levers to push and faster than waiting on an electric actuation.
Anti-scalp rollers - 4	Front middle and front corners to keep scalping to a minimum.
Cutting height	1 1/2" to 4 1/2" Range in 1/4" increments to cut any type of turf grass.
Tires	Wide tires offer excellent ground flotation. Heavy wheel forks take abuse.
High blade tip speed	44" = 16,811 fpm and 52" = 18,937 fpm (Assures a good finish cut.)
High lift blades	Heavy-duty high lift blades are .20" thick to handle the wear, with a high lift design to stand the grass up before cutting. Made from highest quality TM Marbain steel for longer blade life.
1" Blade spindles	1" Blades spindles with ball bearings handle heavy shock loads.
Single belt drive	Single belt design offers easier maintenance over multiple belt designs, less expensive to maintain.
Electric clutch control	Easy and smooth engagement of the mower blade drive system.
Hydro-Gear ZT-2800TM (Zero-Turn Transaxle) drive unit on each rear wheel	Each mower has a homeowner friendly integrated hydrostatic transaxle containing a pump and drive motor for each rear wheel. Except for changing hydraulic filters, these units are self contained and are maintenance free.
Choice of Honda or premium Briggs Intek Series Engines and 18, 20, or 25 HP	Makes it possible for you to buy more value, performance and power for your dollar.
The engine is centered and oriented for maximum ease of service.	Engine orientation provides for increased air flow around engine fins to help extend engine life. Also it provides for a shorter overall mower length with more leg room available. Spark plugs, air cleaner, choke and throttle can be serviced from the rear verses the side. The muffler is located to reduce potential burn hazard and to lower sound level at the operator's station.
Electric start	Easily starts with the turn of a key.
Integrated fan blades	Pumps stay cool.
Sleek styling twin six-gallon molded fuel tanks with extra large inboard fuel caps.	Twin six-gallon tanks (12 gallons total) with selector valve for extending operating range and decreasing down time. Extra large fuel openings for easy fueling. Inboard positioning of fuel caps so they don't come off during operation.
Molded-in dual cup holders and storage compartments	Cup holders fit a wide variety of cups and are in easy access to driver. Storage compartments offer additional operator convince.
Seat Options	Molded seat incorporates a high back to give adequate comfort for the long jobs or Deluxe Cushion seat for additional suspension over rough terrain.
Integrated Park Brake	Spread steering levers fully out; this automatically sets the Park Brake. No separate lever to hunt for.

Symptoms	Probable Causes	Suggested Remedies
Starting motor does not crank	Control arms are not in park position or park switch is out of adjustment	Place control arms in neutral and full out. Re-adjust park position switch
	Blade Engagement switch is engaged	Disengage blade switch
	Weak or dead battery	Recharge or replace
	For additional causes	See engine manual
Engine cranks but does not start	No fuel in fuel tank	Fill fuel tank
	Fuel tank valve turned to "OFF"	Select a fuel tank with gasoline See Figure 5-9 on page 36
	Fuel tank valve turned to an empty tank	Switch Left/Right tank valve See Figure 5-9 on page 36
	Fuel filter or fuel line is plugged	Replace fuel filter or fuel line
	Numerous	See engine manual
Engine: Runs with continuous misfiring or engine runs unevenly or erratically	Numerous	See engine manual
Grass cutting is ragged or uneven	Dull, bent or broken cutting blades	Sharpen or replace cutting blades
	Deck full of wet sticky grass	Clean underside of deck
	Cutting Blades are not operating at full engine speed	Increase engine rpms to full speed (3600 rpm)
	Belt over center take-up is loose	Tension over center take-up
	Worn or broken belt	Replace worn and broken belts
	Deck is not level	Check air pressure in all 4 tires Make level adjustments to the deck
Loss of power or system will not operate in either direction	Bypass valve rods are disengaged	Engage bypass valve rods
	Linkage bolt is loose or lost	Replace linkage bolt
	Bad pump belt and/or idler pulley	Replace belt and/or idler pulley Tighten idler pulley if loose
	Loose or lost idler pulley bolt	Retention idler pulley and retighten or replace idler bolt
	Restrictions in air cleaner	Service air cleaner
	Internal interference or leakage in Hydro-Drive	See your dealer
	Insufficient hydraulic oil supply	Have dealer check hydro-drive
	Poor compression	See your dealer
	Steering linkage needs adjustment	Adjust linkage
	Air in system	Check filter & fittings
	For additional causes	See engine manual
Overheating	Air intake screen or cleaning fins clogged	Clean screen and fin
	Not operating engine at rated speed	Increase engine speed to 3600 rpm
	For additional causes	See engine manual

Section 7: Troubleshooting

Symptoms	Probable Causes	Suggested Remedies
Low oil pressure (Indicated by oil light on while engine is running.)	Low oil level	Add oil
	Oil diluted or too light	Change oil and check for source of contamination
High oil consumption	Numerous	See your dealer
Mower jerky when starting or operates in one direction only	Steering control linkage needs adjustment	Adjust linkage
	Hydro-drive faulty	See your dealer
Hydraulic system operates hot	Oil level low	Add oil at the expansion tanks
	Hydro-drive faulty	See your dealer
	Not operating engine at rated speed	Increase engine speed to 3600 rpm
Mower creeps when steering control levers are in neutral	Steering linkage needs adjustment	Adjust linkage
Mower circles or veers in one direction	Steering linkage needs adjustment	Adjust linkage
	Hydro-drive faulty	See your dealer
Mower creeps when in park	Steering linkage needs adjustment	Adjust steering linkage
	Brake actuator not working	Replace brake actuator

Torque Values Chart

Bolt Size (Inches)	Bolt Head Identification						Bolt Size (Metric)	Bolt Head Identification					
	 Grade 2		 Grade 5		 Grade 8			 Class 5.8		 Class 8.8		 Class 10.9	
in-tpi ¹	N · m	ft-lb ³	N · m	ft-lb	N · m	ft-lb	mm x pitch	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1 1/4" - 12	750	555	1680	1240	2730	2010	¹ in-tpi = nominal thread diameter in inches-threads per inch ² N · m = newton-meters ³ ft-lb= foot pounds ⁴ mm x pitch = nominal thread diameter in millimeters x thread pitch						
1 3/8" - 6	890	655	1990	1470	3230	2380							
1 3/8" - 12	1010	745	2270	1670	3680	2710							
1 1/2" - 6	1180	870	2640	1950	4290	3160							
1 1/2" - 12	1330	980	2970	2190	4820	3560							
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.													
Additional Torque Values													
Drive Wheel Lug Nuts (1/2"-20 UNF)							75 ft-lbs.			102 N-m			
Blade Spindle bolts (1/2"-20 UNF x 2 1/2" GR8)							60 to 70 ft-lbs.			82 to 95 N-m			
Spindle Housing Flange Bolts							55 ft-lbs			75 N-m			
Idler Pulley bolts (5/8"-11 UNC GR5)							130 ft-lbs.			176 N-m			
Electric Clutch Bolt (7/16"- 20 UNF x 3" GR5)							50 to 55 ft-lbs.			68 to 75 N-m			

Tire Inflation Chart

Tire	Inflation PSI
Drive Wheels	8 to 12
Caster Wheels	8 to 12

Section 8: Appendix

Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule:

***Residential use:** 4 years Parts and Labor.

***Residential purpose** means use of product on same lot as your home.

Front edge of mower deck: All defects in the deck which results in the front edge of the deck being bent into the blades for the entire length of ownership by the original purchaser.

Frame: All defects in the mower frame for the entire length of ownership by the original purchaser.

Engine: 2 year limited warranty on Parts and Labor, through engine manufacturer.

Battery: 1 year limited warranty

Belts, blades, and tires are considered wear items.

Filters and Plugs are considered maintenance items.

This Warranty is limited to the replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and other routine maintenance items.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Land Pride dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Land Pride within 30 days from the date of purchase by the end user.



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